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1. Project/Subproject Number: 613-0208

2. Contract/Grant Number: PDC-1109-I-00-7119-00

3. Publication Date: November 1990

4. Document Title/Translated Title:

Final Evaluation: Basic Education and Skills Training Sector Assistance Program (BEST)

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6. Contributing Organization(s)

Creative Associates International, Inc.

7. Pagination: 42p.

8. Report Number:

9. Sponsoring A.I.D. Office: USAID/Zimbabwe

10. Abstract (optional - 250 word limit)

11. Subject Keywords (optional)

1. 4.
2. 5.
3. 6.

12. Supplementary Notes

13. Submitting Official: Jerry Velardi

14. Telephone Number: 202-966-5804

15. Today's Date: 1/10/91

DO NOT write below this line

16. DOCID:

17. Document Disposition: DOCRD [ ] INV [ ] DUPLICATE [ ]

AID 590-7 (10/88)

PD-ABC-223

FINAL EVALUATION: BASIC EDUCATION AND SKILLS TRAINING SECTOR ASSISTANCE PROGRAM (BEST)

Prepared for the

United States Agency for International Development

by

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Contract No. PDC-1109-I-00-7119-00

Delivery Order No. 26

November 1990

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EXECUTIVE SUMMARY

1. Project Title and Sponsor

Basic Education and Skills Training Program (BEST) 613-K-606, USAID Mission to Zimbabwe, October, 1990.

2. Goal of the BEST Program

The basic goal of BEST was to contribute to Zimbabwe's economic and social development by providing additional budgetary resources to help Government implement a cost-effective and equitable program of expanding its educational and employment skills training system. Five major constraints to expansion of the system were: limited and inequitably allocated resources, insufficient numbers of trained instructors, inappropriate instructional curricula, inefficient and inequitable spatial distribution of instructional facilities and staff, and insufficient planning and administrative capacity. The BEST Program was authorized US$ 45 million; it began in 1983 and will end in December 1990.

3. Purpose of the Evaluation and Methodology Used

The purpose of the evaluation was to assess BEST's effectiveness in helping Zimbabwe overcome key constraints. The evaluation was conducted through several steps: (a) interviews with officials of Government, USAID, consultants to BEST, and representatives of institutions associated with BEST and their beneficiaries (Appendix A); (b) field visits, observations, and focus group interviews with teachers (Appendix B); and (c) analyses of program and project documents, and collection of financial, educational, and other program data from participating institutions (Appendix C, E, and F).

4. Findings and Conclusions

It is important to recognize that BEST's contributions were made possible by USAID assistance through cash transfers and CIPs prior to BEST. This assistance funded primary and secondary school construction, creating the necessary physical infrastructure for increased expansion of teachers and materials. Equally important, pre-BEST assistance helped establish the trust and confidence of the Government of Zimbabwe in USAID. Other key findings and conclusions to overall evaluation issues follow.

a. Were the objectives of expanding and redistributing the education and skills training system met?

Expansion of the education system is seen in the following data compiled from Appendix E:

	Enrollments		Instructors		Facilities	
	1980	1990	1980	1990	1980	1990
Primary	1,236,000	2,282,000	28,500	58,500	3,100	4,500
Secondary School	75,000	708,000	3,700	28,000	200	1,500
Tertiary Programs						
Technical Training	3,600	9,400	-	450	2	10
Teacher Training	2,800	16,500	260	720	7	14
University	2,200	9,300	300	700	1	1

Redistribution of system enrollment is seen in the following: enrollments by level were 94, 5.4, and 0.6 percent for primary, secondary, and tertiary respectively in 1980. In 1990 they were 75, 24, and 1 percent respectively. The number of qualified teachers (as defined by the Ministry of Education and Culture) has increased from 9,000 at independence to 36,000 today.

During the period 1980-1990, unit costs grew 13%, in real terms for primary education but declined 57% for secondary education. Public spending on education, approximately 22% of recurring public expenditures, increased 175% in real terms. Policies intended to increase cost recovery (beginning in 1991) may have an impact on cost effectiveness, but the positive effects on equity issues may be problematic.

b. Were BEST's budget support and technical assistance significant in enabling Zimbabwe to meet its objectives?

BEST provided the Government of Zimbabwe approximately Z$64 million in inputs during the period 1985-88 for infrastructure development in the education sector, roughly 25% of the total capital budget for education at that time. The US$10 million in technical assistance funded 46 lecturers, approximately 4% of all tertiary level teachers at any given time.

c. What was BEST's role in efforts to overcome or alleviate the five constraints to education sector goals?

A decade is not sufficient to overcome the inequities of a century, regardless of the level of available resources. Thus, it is unreasonable to assume that a US$45 million grant in a sector whose total expenditures during the life of the grant exceeded Z$3 billion would have the leverage to overcome fundamental constraints. Nevertheless, BEST made important contributions towards alleviating them.

- Limited and inequitably allocated resources. BEST's contribution was to provide needed foreign currency for the private sector, and through the generation of local currency, to aid the Government in reallocating resources towards activities aimed at redressing inequities, such as building physical infrastructure at the tertiary level and developing a capacity for producing and distributing learning materials.

- Insufficient number of trained instructors. The contributions made by BEST towards overcoming the limited number of trained instructors were very useful. However, the inability to attract and retain qualified instructors with appropriate vocational/ technical skills at the secondary and tertiary levels continues to be a major constraint.

- Inappropriate instructional curricula. BEST made important contributions to overcoming this constraint. New curricula and syllabi, more relevant to Zimbabwe's needs, have been developed at all three levels. A new degree program was developed for the tertiary level, which is a key element in the Government's plan to restructure skills training. At the secondary level, examinations and learning materials have been prepared that reflect these changes, and staff development activities have been initiated to diffuse understanding of new curricula, exams, and learning materials.

- Inefficient and inequitable spatial distribution of instructional facilities. Defining facilities broadly to include buildings, learning equipment, materials, and staff, the Government of Zimbabwe has made progress towards overcoming inherited inequities. BEST funds were important in several aspects of this progress such as building two completely new technical colleges and complementing the equipping of three other tertiary institutions; and distributing over 33 million distance learning materials, 2 million books, and 1,100 technical kits, most of which went to schools that previously had few, if any, of such resources. However, inherited inequities among different school types may have been inadvertently reinforced through some BEST activities. For example, kits tended to be distributed to schools with better equipped classrooms and more storage space; that is, preindependence elite schools.

- Insufficient planning and administrative capacity. The Ministry of Education and Culture made substantial use of the limited resources that BEST allocated to this area. This use included installation of a computerized MIS to assist in decentralizing certain ministry functions; localization of examinations; improvements in administrative policies and procedures regarding the production and distribution of learning resources; and construction of an office building for the National Education Service Center. At the tertiary level, BEST resources were instrumental in starting a Human Resources Research Center (University of Zimbabwe), which is providing in-career management development training for the education sector. However, the lack of a comprehensive plan for human resources development in Zimbabwe generally, and the education sector specifically, as well as a growing climate of professional uncertainty, suggested by relatively high turnover in middle and upper management levels of Government, mean that insufficient planning and administrative capacity are still major constraints, and were not given sufficient attention by BEST.

d. Did A.I.D. provide budget support, technical assistance, and commodities as intended, and did Zimbabwe make effective use of the resources made available under BEST?

In the aggregate, A.I.D. provided the intended levels of support. Technical assistance was increased to US$15.3 million, up from US$8.7 million in the Grant Agreement. In general, the Government of Zimbabwe had the expected capacities to make effective use of the funds, particularly through the Ministry of Education and Culture. The Ministry of Public Construction used funds relatively efficiently for the construction of facilities funded by BEST. Management of tertiary level ministerial concerns with which BEST was involved, first in the Ministry of Labor, Manpower Planning and Social Welfare and currently in the Ministry of Higher Education has been uneven, as indicated by the underutilization of facilities, equipment, and participant training opportunities.

e. Did the BEST sector program approach compare favorably with other approaches in terms of overall impact, policy dialogue, cost-effectiveness, ease of implementation, and sustainability?

The BEST sector program approach was appropriate at the time it was initiated. It provided the Government with budget support and the private sector with access to foreign currency during times when both needed assistance. It provided ease in implementation, from the Government's perspective (except in acquisition of certain commodities). With a project format monitored by an interministerial Working Group, and with the ZIMMAN Project also functioning in the education sector, BEST provided flexibility at both a program and project level, which gave the Government opportunities to use education sector activities for an agenda of national political integration. As a program of sector assistance, BEST kept A.I.D. out of implementation issues, which was important from the standpoint of allowing the Government of Zimbabwe to gain a sense of initiative and control over policy implementation during the first decade of independence. Budget support, not policy dialogue, was the focus of A.I.D. operations in Zimbabwe at the inception of BEST, and it was effective.

Regarding cost-effectiveness and sustainability, the Evaluation Team concludes that BEST performed as well as and perhaps better than other forms of assistance. Fully Projectized Assistance may have had more explicit goal statements on which to measure effectiveness, but the Government may not have been able to provide the needed monitoring capacity required by project assistance. Furthermore, project assistance would not have provided needed flexibility and budget assistance. Many of the BEST-funded projects, such as the distance learning materials, were cost-effective, and others, such as technical colleges, will be more cost-effective when fully utilized.

In the Zimbabwean context, sustainability is not related to whether A.I.D. assistance came in the form of a sector program or a project. Sustaining BEST's outcomes is related to general economic issues the Government is facing, including decisions that will affect staff turnover in the education sector.

5. Recommendations

Although BEST is terminating, the Government may consider the following recommendations:

- Resource Equity. To promote more efficient and equitable distribution of resources, the Government should continue introducing policies and procedures that promote cost recovery, provided that safeguards exist to protect the poor.
- Instructors. The Government should implement policies that recruit and retain qualified teachers at all levels.
- Curricula. The Ministry of Education and Culture should expand decentralization efforts through more involvement of teachers and school heads in instructional reform.
- Special Distribution. The activities of the Ministry of Higher Education should be decentralized, with individual institutions having more autonomy and responsibility for strengthening programs in response to private sector needs. Other recommendations are discussed in the body of the report.
- Managing Capacity. The Government should conduct a needs assessment in critical areas as the basis for plans to strengthen planning and administrative capacity. Donors should require strategic plans at ministry and institutional levels as a condition of new donor aid.

6. Lessons Learned

- To be successful, assistance needs to fit the situation for which it is intended. The BEST Program seemed to fit the needs of Zimbabwe at the time of its design and initial implementation. Those needs were budgetary support and foreign currency; fast, flexible programming of resources; and a relative degree of independence (freedom from micromanagement), assured by a necessary infrastructure and management capacity.
- After the initial burst of development efforts following independence, it is important that activities that are going to be conducted on a large scale are first developed and tested on a small scale, in order to identify and correct all the problems of design and implementation. In short, the development process should follow three steps: 1) learn to do the right thing (effectiveness), 2) learn to do it right (efficiency), and 3) do it big (expansion).
- In designing and implementing pilot activities, people at the operational level (school heads and teachers) need to be involved. Coordination needs to be carefully planned where different levels or subsystems come together.
- Failure to allocate sufficiently for human resource development reduces the effectiveness and threatens the sustainability of infrastructure and system-strengthening activities such as construction, MIS installation, and curricular reform.
- Plans to maintain equipment and obtain appropriate spare parts after donor assistance ends need development early in the life of a project, while foreign currency exists.
- Program assistance (as distinct from budget assistance) efforts need careful, long term planning in order to provide followup assistance in efforts that are working well and merit diffusion, and to respond to new crises and opportunities.
- Program-assisted efforts generally have less emphasis on specific quantitative outcomes, such as normally found in the logical frameworks of projects. Therefore, monitoring and evaluation efforts are more likely to be qualitative in nature unless steps are taken to develop more specific goals and outcomes. In BEST, linkage between broad sector assistance goals and specific projects supported by BEST funding enabled the development of more quantitatively measured outcomes complementing the qualitative measures of sector performance.

I. INTRODUCTION

Background of the BEST Program

Context of Education Reform. At independence in 1980, the Government of Zimbabwe initiated major expansion of the education sector at all levels. This effort was aimed at fulfilling promises to transform an elitist, and racially and socially biased educational system to one that would provide universal access to a more equitably funded and dramatically expanded system of primary and secondary education, and an expanded and restructured tertiary level system, emphasizing vocational and technical training for employment.

Expansion of the education system at all levels required substantial resources in order to construct new facilities, replace war-damaged buildings, and train thousands of new teachers. This put considerable strain on the financial resources of the new government. In 1983 USAID judged that Zimbabwe's primary need was for foreign exchange with which to implement planned reforms and support private sector growth (48). Despite its newness as a nation, Zimbabwe had relatively well formulated plans for expansion and reform of the education sector, as well as the basic management capacity to manage its program. And, the years of self-sufficiency during the economic embargo under the Smith regime had produced certain private sector strengths and governmental accounting practices that enabled the new government to carry out its reforms.

Expansion and reform of the education sector was a key element in the Transitional National Development Plan prepared by the Ministry of Finance, Economic Planning, and Development. Financing the expansion and reform was to be assisted by USAID through provision of local currencies generated by a commodity import program mechanism. In effect, USAID's efforts had the multiple effects of providing needed foreign exchange to the private sector, easing the adverse impact of foreign exchange shortages on the macroeconomy, and providing local currency for construction and other infrastructure costs in the sector.

During negotiations with the Government regarding the BEST Program, it was agreed that analyses of main problems and issues in the education sector had been sufficiently well established through other donor-assisted studies, and that the emphasis of BEST could be on implementation (47). This was consistent with the prevailing climate of "action" within the Ministries of Education, Labor, and Public Construction, the key implementing agencies of the BEST Program.

BEST Administrative Structure. Implementation of the BEST Program was coordinated through an interministerial working group known as the BEST Working Group, which was a focal point for BEST planning and decisionmaking. A thorough analysis of the functioning of the Working Group was carried out for USAID by an independent auditor in 1986 (44). Regular members of the Working Group included representatives of USAID; the Ministry of Finance, Economic Planning, and Development (MFEPD), whose Under Secretary for International Aid chaired the Working Group; the Ministry of Education and Culture (MOEC); the Ministry of Manpower Planning and Development, currently the Ministry of Labor, Manpower Planning, and Social Welfare (MLMPSW); and, the Ministry of Construction, currently the Ministry of Public Construction and Housing (MPCH). When the Ministry of Higher Education (MHE) was created, responsibility for vocational and technical training at the tertiary level was transferred from the Ministry of Manpower Planning and Development to MHE, and MHE became a member of the BEST Working Group.

Within the ministries, participation in the BEST Working Group was generally provided by officers from units involved in planning ministerial programs, such as the Curriculum

Development Unit (CDU) of the Ministry of Education and Culture, which has overall responsibility for curriculum planning, examinations, and coordination of teacher training; the Policy and Planning Unit of the Ministry of Higher Education; the National Planning Agency (NPA); and the Public Sector Investment Program (PSIP) of the Ministry of Finance, Economic Planning, and Development. Representatives from other Government agencies, such as Treasury and Auditor General, participated as merited.

The general functions of the BEST Working Group were to decide on the allocation of BEST's local currency (generated by payments for commodities made by private sector importers) and to coordinate implementation of BEST programming among participating ministries. The local currency funds were to be allocated to implementing agencies to support high priority activities and projects already included in Government's agenda for expanding and reforming the education sector. To guide its actions, the Working Group developed and applied a set of criteria to specific funding proposals from the implementing agencies. These proposals generally came in the form of projects aimed at specific actions to overcome key constraints. In this manner, 20 projects (12 at the primary and secondary level and 8 at the tertiary level) were approved as channels for utilization of BEST local currency funds (Appendix F). The Working Group also considered the utilization of the foreign currency portion of BEST, in order to coordinate the programming of the expected outcomes of the two streams of funding.

Context of Donor Support. In addition to BEST funding, USAID also provided the Government of Zimbabwe with education sector support through the ZIMMAN I Project. This project funded activities to strengthen and expand the capacity of training institutions in targeted disciplines. ZIMMAN I provided US$ 13 million in support for training and technical assistance. By operating simultaneously with BEST, ZIMMAN I provided USAID and the Government's implementing agencies with an unusual degree of funding and operational flexibility. In addition, USAID provided the Government with substantial cash transfer and CIP assistance prior to the initiation of BEST.

USAID's support to the Government of Zimbabwe for expansion and reform of the education sector was part of a growing effort from donors. During the first decade of independence, donor support grew from negligible amounts in 1980 to over ECU 284 million in 1988 (**6**). Donor support for the Government's development programs, including the education sector, has been increasingly important as budgetary pressures have become more acute and capital expenditure programs have come under increasing strain. In 1987 approximately 30% of all donor aid went to support the Government's development programs (**6**).

Within the education sector, donors have made an effort to coordinate their assistance, but success has not been significant, largely due to lack of follow-through. As recently as 1989, USAID and other key donors in the area of vocational/technical education attempted to assist the Ministry of Higher Education in maximizing donor efforts through closer coordination and consultation (**38**). However, this effort has not led to any action by the Ministry, which is a cause for concern among donors.

Evaluation Context. The final evaluation of the BEST Program comes at a time when Government and donors are reassessing needs and progress in the education sector, in light of rapidly changing political and economic events within the region and the world. Events in Eastern Europe and the Persian Gulf threaten the availability of donor assistance and increase the pressures on foreign exchange. Events within the region create conflicting economic implications for Zimbabwe. Continued population growth in Zimbabwe, coupled with strong pressures for economic reform, create tremendous employment uncertainties for Zimbabwe's youth in the decade of the nineties. One report estimates that 2 million young people will be trying to enter the job market during the decade, and only 250,000 additional workers are likely to be absorbed (**6**).

A major issue to be faced is how to create a structure to achieve better coordination between labor market forces of supply and demand. This issue has persisted through interim evaluations of BEST and other donor assisted programs (**19,21,38,55**). It is reflected in the following concerns: the need for long-term policy planning in the field of technical vocational education, with appropriate representation of the private sector in the planning process; the need for more effective coordination of the various inputs to both supply and demand generation mechanisms; and, the need for more efficient utilization of education and training resources. The continued existence of these concerns at this time implies that the final evaluation of BEST should be seen within the context of a need to assess the Government's will and capability to create effective partnerships with donors and the private sector to face these challenges, rather than merely assessing whether BEST accomplished what was intended.

Methodology

The BEST program evaluation was conducted by a team of technical experts that was comprised of an educational planner/systems analyst; and educational economist/finance analyst; a curriculum/teacher education specialist; an institutional development/administration specialist; a statistician/budget analyst; and a social scientist/rural development analyst. There were seven United States researchers and two Zimbabweans on the team.

The evaluation was conducted through several steps: (a) interviews with officials of Government, USAID, consultants to BEST, and representatives of institutions associated with BEST and their beneficiaries (Appendix A); (b) field visits, observations, and focus group interviews with teachers (Appendix B); and (c) analyses of program and project documents, and collection, educational, and other program data from participating institutions (Appendix C, E, and F).

Limitations of the Evaluation

The evaluator faced several limitations related to the methodology used. Perhaps most importantly, none of the key actors in the crucial design and decisionmaking period of BEST are still involved with BEST, nor were they readily available for interviewing. Furthermore, many of those in government agencies still carrying out activities begun under BEST were not able to access historical information about the program, nor had information been uniformly collected throughout the life of BEST that would have yielded a more complete picture and permitted a more thorough analysis. For example, much of USAID's accounting information on BEST is housed in Washington. In short, institutional memory was limited.

Furthermore, despite the goodwill and cooperation of all the individuals with whom the Evaluation Team interacted, the organizational reality was that BEST is history, and that there are many more pressing issues demanding time and attention in the implementing agencies, and having more to offer in terms of immediate, tangible benefits than a program no longer being funded. In short, there was little motivation for individuals who had fragmentary information about a complex, defunct project to search for elusive information and reflect on its value, when faced with current organizational demands from ongoing projects in which they had strong, vested interests.

Final limitations included the lack of access to existing information or of time to generate all the desired information. A comprehensive sector assessment was recently conducted by the World Bank, but it was not possible to have access to some of the data that would have added depth and rigor to the analysis concerning sectorial accomplishments and status of efforts to overcome key constraints. Similarly, the results of the evaluation of the Brothers' Brother Book Project, one of BEST's projects, were not included in this evaluation because the government did not authorize the local consultants conducting the study to release the draft report to the Evaluation Team. This

limited the analysis concerning allocation of resources.

Neverthcless, the Evaluation Team was able both to address all the issues raised in the Scope of Work and also to develop findings, conclusions, recommendations, and lessons learned that knowledgeable report reviewers have found credible and useful.

Organization of the Report

The report is organized according to the issues presented for analysis in the Scope of Work. Chapter II discusses BEST's role in the accomplishments of the basic sectorial objectives of expanding and redistributing the education and skills training system. This chapter draws heavily upon data presented in Appendix E.

Chapter III analyzes BEST's impact on each of the five basic constraints to expansion and reform in the education sector. Within the discussion of this chapter is relevant information concerning various aspects of the projects receiving BEST support, such as the development of distance learning materials and technical kits. There is not an analysis of each of the 20 projects *per se* in the report, since that was not a focus of the evaluation. Appendices F and G provide additional information about the projects.

Of particular interest to drafters of the Evaluation's Scope of Work were special issues concerning program design and implementation, given BEST's relatively unusual characteristics and the context in which it was implemented. Chapter IV looks at issues of cost-effectiveness, management, innovation, and lessons learned.

In addition to the aforementioned appendices, other appendices include the list of persons interviewed, a detailed bibliography, and the scope of work. (Numbered references in bold parenthesis, e.g., **(1)** , at the end of a sentence in the text refer to the source document in the bibliography). Of special interest to some may be Appendix B, which briefly discusses the special focus group interviews conducted with selected groups of teachers.

II. ACCOMPLISHMENTS OF ZIMBABWE EDUCATION SECTOR REFORMS

At the time BEST was initiated, the Government of Zimbabwe had three sectorial objectives: to expand enrollment at the primary and secondary levels, particularly in those areas previously neglected by the pre-independence regimes; to train more teachers for both primary and secondary schools; and to diversify and modernize secondary and tertiary vocational/technical training programs. Furthermore, these efforts were to be pursued with an emphasis on improving cost-effectiveness and equity within the overall system.

Significant progress has been made towards achieving many of the overall objectives of educational reform in Zimbabwe. The following section summarizes quantitative achievements in education and skills training. A more detailed discussion is found in Appendix E.

Primary and Secondary Enrollment Level Achievements

Primary Level Achievements. Steady increases in enrollment at the primary level have been made. There were 1,235,994 pupils in primary schools in 1980. By 1990, enrollment rose to 2,281,595, an increase of 84.6 percent (Table 1, Appendix E). The number of primary schools increased from 3,161 in 1980 to 4,504 in 1989, an increase of 42.4 percent. During the same period, the number of primary teachers increased from 28,455 to 58,160, which amounts to an increase of 104.4 percent (Table 2, Appendix E). The increase in the number of primary teachers reduced the average teacher-pupil ratio from 1:43.4 in 1980 to 1:39.1 in 1989 (Table 4, Appendix E). The participation rate of girls in primary education stands at about 49 percent. The enrollment in primary schools as a percentage of the 6-12 age group sharply rose from 10 percent in 1981 to 90 percent in 1985, and then dropped to 80 percent in 1988 (Table 6, Appendix E).

Secondary Level Achievements. There also have been sharp increases in enrollments at the secondary level. The relatively small figure of 74,321 students in 1980 rose to 708,080 in 1990, reflecting a phenomenal increase of 852.7 percent. This is the most significant achievement in expanding and redistributing educational resources; secondary level's share of total enrollmer increased from 13 percent in 1980 to 24 percent in 1990, while primary level's share decreased from 86 percent in 1980 to 75 percent in 1990. Secondary education's rate of increase is now leveling off as cohort capacity is reached, and older than cohort population moves out of the system.

Increases in enrollments were made possible by school construction efforts that began before BEST. The accompanying sharp increases in the number of teachers in secondary education were possible largely by accepting lower qualification standards. There were only 3,730 secondary teachers in 1980; by 1990 there were 27,967, an increase of about 65 percent per year throughout the decade. While there has been a decline in participation and transition rates (the carry over from primary to secondary level), the overall trend i.. been up since independence (Tables 5 and 6, Appendix E). The enrollment in secondary education as a percentage of the 13-18 age group rose from 15 percent in 1981 to 63 percent in 1988. The participation of girls in secondary education has remained constant at about 42 percent. In terms of transition rates, fewer girls are proceeding to secondary school after grade 7 (Table 5, Appendix E).

Achievement Rates. Achievement rates, measured by examination scores, rose initially, but have been declining markedly in recent years. Of the total 129,909 students who sat for Zimbabwe Junior Certificate (ZJC) examinations in English in 1980, 48 percent attained a passing standard.

In 1987, 43 percent of 146,674 passed this subject, and in 1988 only 34 percent of 169,913 students passed. The situation in mathematics appears worse. Of the total 130,266 students sitting for the ZJC mathematics examination in 1986, only 18 percent attained a passing standard. In 1987 only 9 percent of 146,241 students passed ZJC mathematics, and 16 percent of 169,009 students in 1988 passed. The decline in achievement rates may be read as the price of honoring the political commitment to increase access to education. However, the long-term concern now seems to be shifting towards reclaiming quality of education and having it more widespread in both academic and vocational programs.

Tertiary Level Achievements

Teacher College Enrollments. Teacher education enrollments have sharply increased. In 1980 there were only 2,824 students registered in seven teachers' colleges. The enrollment rose to 16,576 students registered in 14 teachers' colleges in 1990, an increase of 487 percent. A significant factor in this increase was the construction, with BEST and pre-BEST A.I.D. assistance, of Belvedere Teachers' College, with a capacity of 2,000 student teachers. A fifteenth teachers' college is expected to open soon in Chinhoyi. The expansions in teacher training reflect a serious commitment by the Government of Zimbabwe to improve the quality of education in the school system by improving the teacher quality.

Technical College Enrollments. There also have been increases in enrollment in technical colleges. The numbers of students taking technical courses increased from 3,642 in 1980 to 9,403 in 1990, an increase of 158 percent. However, this is down from a high of 14,410 enrolled in 1985 (Table 1, Appendix E). The decrease in enrollment is mainly due to a serious shortage of lecturers in almost all colleges (Table 8, Appendix E). Of the total 13,421 student places in the seven technical colleges, about 80 percent were filled in 1989. Of the total 657 positions for lecturers in the seven colleges, only 65 percent were filled in 1989. The shortage of human resources in the technical colleges has seriously affected the ability of the colleges to operate at full capacity and to offer the full range of courses in the curriculum. Consequently, output levels of graduates in the various disciplines are well below the capacity of the institutions. This situation is a source of considerable concern since technical education, a target area of the BEST program and other donor programs, has been seen as a solution to unemployment problems.

University Enrollments. Enrollments in the University have also increased substantially. There were 2,240 students in the University in 1980 and 9,300 in 1990, an increase of 315 percent. However, since this growth is still financed entirely by government subsidies, expansion of University enrollment does nor represent the reallocation of resources intended by government policies and BEST. Within the tertiary level, the University's share of enrollments actually increased from 18 percent to 26 percent during the decade, despite the doubling of enrollments in teachers' colleges during this period.

The proposed establishment of a second university raises very serious issues of resource allocation, at a point in time when competition for capital and recurrent resources within the education sector is growing (**83**).

Costs and Beneficiaries

Costs. The unit cost of primary education in 1990 is estimated at Z$338 or Z$117 in 1980 constant dollars. This represents an increase in real terms of 13.6 percent. In 1990 it is estimated that the unit cost of secondary education will be Z$582, or Z$201 in constant dollars. This is a decline of 57.3 percent in real terms. This decline in secondary unit costs is due largely to a 1983 initiative that increased pupil/teacher ratios. The unit costs presented include only the

government's portion of education expenditures. Increasingly, the additional cost of secondary education is being shifted to parents through various cost recovery policies.

It is not possible to calculate comparable unit costs for employment skills training at the secondary level. The MOEC does not disaggregate costs for employment skills training and vocational education activities from other education costs, nor did the Evaluation Team have the resources to obtain longitudinal data on expenditures for secondary or tertiary education.

The unit cost for technical colleges (which provide skills training), teachers' colleges (which prepare teachers of skills training and vocational education) and the University of Zimbabwe have shown an increase in the last three years, as indicated in Table 11, Appendix E. The largest increase, 43 percent in three years, has been in technical colleges.

Beneficiaries by Gender. It appears that female students have not benefitted as well as male students from education and skills training reforms, although Zimbabwe generally has higher female participation rates than most other developing countries. In primary education, 49 percent of the student body are girls. In secondary and tertiary education, the number of female students is smaller--42 percent in secondary, about 43 percent in teacher education, and about 34 percent in technical education. The number of female students in the University is less than 25 percent of total enrollment.

The number of female students in technical colleges dropped from 44 percent in 1989 to 34 percent in 1990. In 1990, there are 3,149 female students in technical colleges out of an enrollment of 9,261 (Table 7, Appendix E). The participation of female students in areas traditionally dominated by men remains low. For example, in 1990 female enrollment was 2.9 percent of those students enrolled in Automotive Engineering, 6.4 percent in Construction/Civil Engineering, 14.7 percent in Electrical Engineering, 1.0 percent in Mechanical Engineering, and none in Mining Engineering. There does not appear to be a clear strategy within these industries or higher education to attract women into careers in these areas, such as has been developed by the National Commission for Women and the University in nearby Malawi. Course selections by female students in technical colleges in 1990 included secretarial studies with 35 percent of the total female enrollment and business studies with 26 percent. In newer fields of training, such as computer science and mass media, female enrollment is 34 percent and 52 percent respectively.

Beneficiaries by Rural/Urban Classification. It has not been possible to determine whether there has been a reallocation of education and skills training by spatial consideration. Data that would provide answers to this issue are not available, because government claims not to collect data in a way that clearly distinguishes between urban and rural schools. The Evaluation Team lacked the time and resources to collect such information on a broad enough basis to form a valid and reliable assessment. There are qualitative indications that while some progress has been made, urban populations still are the primary beneficiaries of Government support for education and skill training at secondary and tertiary levels.

Five teachers' colleges (Bondolfi, Gwanda, Masvingo, Morgenster and Nyadiri) may be described as rural colleges. In 1989, 3,501 teacher trainees were enrolled in these rural colleges while 12,730 were enrolled in nine urban colleges. In technical education, 1,210 students (11.3 percent of the total) were enrolled in 1989 in three rural colleges (KweKwe, Masvingo, and Kushinga Phikhelela) while 9,505 were enrolled in four urban technical colleges. In 1990, 754 students (8 percent of the total) were enrolled in rural technical colleges.

Conclusions

Significant progress was made by the Government of Zimbabwe during the first decade of independence to expand and redistribute educational resources. Most dramatic was the increase in enrollment at the secondary level. While there were substantial gains in teacher education enrollments, the rapid increases in the number of teachers, especially at the secondary level, was possible only by lowering teacher qualifications, which led to expected losses of quality as measured by student test scores. While there were gains in redistributing educational resources, as indicated by the increase in secondary level enrollments, there is no evidence to indicate whether rural areas receive more benefits at the end of the decade than they did at its start. Zimbabwe's relatively strong record of enrollment of females at the primary and secondary levels has been maintained through this period of growth.

In general, the education sector has continued to receive approximately 22 percent of Government's recurrent expenditures, up considerably from preindependence levels. This represents an increase of 175 percent in real terms during the decade. Unit costs have declined 57 percent at the secondary level, while experiencing a modest 13 percent increase at the primary level, and considerably higher increases within the components of the tertiary level.

III. CONSTRAINTS TO EDUCATION AND SKILLS TRAINING

This chapter focuses on the progress made towards overcoming the five key constraints to achievement of the Government's sectoral objectives and the role of the BEST Program in each of the target areas. These constraints were limited and inequitably allocated resources, insufficient numbers of trained instructors, inappropriate instructional curricula, inefficient and inequitable spatial distribution of instructional facilities and staff, and insufficient planning and administrative capacity. In general, the US$45 million grant was channeled through a number of project-like activities designed and implemented by the implementing ministries to alleviate these constraints.

The chapter is organized into five sections to correspond with the five key constraints. In conducting its assessment in each of the constraint areas, the Evaluation Team was guided by a series of issues/questions in the evaluation Scope of Work (see Appendix D). Each section of this chapter includes a brief contextual description of the constraint area, where appropriate, findings on the related issues/questions from the scope of work, and conclusions drawn based on the findings.

Limited and Inequitable Allocation of Resources

Context. Prior to independence in 1980, two systems of education existed in Zimbabwe. These systems were different in terms of quality, provision of teachers, facilities, and instructional materials. One system was designed to serve the European, Asian, and Colored population; the second system was designed to serve the African population.

The system serving the European, Asian, and Colored population was clearly superior to the system serving the African population (5). While all European children were assured of six years of primary education and four years of secondary education, African education had too many bottlenecks, and only 27 percent of primary school graduates proceeded to secondary school. More resources were allocated to European education than to African education (12 times more per primary student) because the government of the day was committed to the underdevelopment of African education (41).

Scope of Work Guidance: Assess the extent to which the BEST Program led to budget allocations consistent with reform objectives.

Macro Aspects of Resource Allocation. Public spending on education is averaging over ten percent of Zimbabwe's gross domestic product, and twenty-two percent of government spending (6). Given the significant amount of resources allocated to the education sector, it is paramount that resources be used efficiently and cost-effectively and contribute to overcoming income and educational inequities. However, careful reading of early program documents implies that, unlike the other areas of constraints, BEST had no clear strategy for redirecting education sector budget allocations. The primary focus of BEST in this area was to provide general budget

concerning budget policy in primary and secondary education.
The following discussion briefly describes resource generation and allocation by level, and identifies the limited scope which BEST had in this area.

Primary and Secondary Level. Primary and secondary schools in Zimbabwe are funded through a combination of government expenditures and user fees. Several types of private and government schools exist; however, financing of the recurring budgets for each type of school is similar. The government pays all teacher salaries (according to pre-specified pupil/teacher ratios) and also contributes a per-pupil grant to each school, based on the services provided. Parents pay tuition fees at all secondary schools plus general purpose fees; at the more elite primary schools parents pay general purpose fees. Most schools in Zimbabwe are built using private resources. About 10 percent of primary and secondary schools were constructed with government funds. Primary and secondary schools built by local district councils are included in the category of private schools.

During the first years of independence, the Government sought to develop policies of reallocating resources to rural schools, serving a mostly black population, without destroying the quality of education in the former white schools and urban black schools. Maintaining quality was thought to be essential to allay fears of the white minority. These policy changes were based on concepts of uniform assistance packages of support from the Government on a per-student-by-level-of-education basis, complemented by privately generated support, the level of which was determined by each school's own community based management committee.

These changes made it possible to direct public resources away from Group A (former all white schools) and Group B (mostly all black urban schools) to rural schools. BEST and other USAID education sector support activities, such as ZIMSCI and ZINTEC, were important elements in these policy changes. Many of the BEST activities sought to create innovations that would lead to improved educational quality in rural education at a lower cost alternative than Group A and B school models.

However, to some extent, the inequities that existed at independence (highly supported white schools and poorly supported African schools) still remain, although they have been reduced (11). Since the government pays teacher salaries (according to a staff-ratio formula) and the qualifications and levels of experience at former government A and Trust schools remain greater than that found at former government B schools and newly created schools (in mainly African communities), the government continues to spend more resources per pupil at formerly white schools. This situation is exacerbated by the process for calculating the per capita grant. Schools that provide a more comprehensive set of services (such as science laboratories) receive a larger per pupil grant than schools without such services.

Total spending levels at the more elite Trust schools have continued to rise, relative to other schools. This is because of the increasing role that user fees play in the overall financing of primary and secondary education. For example, tuition fees for selected high fee Trust schools range from $Z 1000 to $Z 2820 (Table 12, Appendix E). In contrast, tuition fees at selected Group A, Group B Urban, Group B Rural, and Rural District Council were fairly uniform, at around $Z 135 per pupil.

The innovations developed and supported through BEST, while originally intended as a means to bring low-cost, high-quality learning resources to rural schools, were also made available to former Group A and B schools. However, the Evaluation Team learned that in some cases the distribution of BEST-supported materials to rural areas was difficult due to lack of transportation facilities or proper storage facilities, and learning resources intended for rural areas went to urban schools.

Thus, while improving the quality of education in rural schools, these innovations did not help the rural schools to "catch up," or reduce the effects of historical inequities.

Tertiary Level. In contrast, most tertiary institutions were built by government and donor funds. BEST funds paid for the construction of two of the seven technical colleges, and contributed to capital expenditures in three others. Belvedere Teachers' College was built through BEST and other USAID assistance.

Three major types of public tertiary institutions are found in Zimbabwe--the University, and teacher and technical colleges. (See Appendix H for a listing of these institutions by type.) Nowhere is the government's policy of financing education more inequitable than in the approach to financing students at the tertiary level of education. Students receive half the cost of education in the form of a grant, and a low-interest loan (with a high default rate) for the other 50 percent. While some students come from families that cannot afford the cost of education, most come from the segment of the population that has the means to pay some portion of costs. The lack of an effective means test for receiving government support translates into a government policy where ability to pay (now or in the future) is not a criterion for financing tertiary education.

The budget for higher education in 1990-91 is estimated at Z$203 million or 13.3 percent of the total recurring education budget (46). This amounts to approximately Z$4415 per pupil. Shifting the burden to existing students and their parents, as well as eliminating the grant in favor of loans, makes economic sense and is consistent with overall government objectives. Without such policy changes, however, BEST's role in expanding tertiary level capacity, while justified on other grounds, may have made it more difficult to direct resources to the secondary level.

BEST Resources Distribution Strategy. The strategy implicit in the distribution of BEST funds, in a systems' sense, had several objectives: to expand the education sector's capacity to produce better qualified work force entrants (through construction of technical colleges); to improve the quality of the work force entrants through development of more appropriate curricula directly related to tertiary level skills training (through technical assistance in developing the Bachelor of Technology degree program) and primary and secondary level foundation skills and knowledge (through development of technical kits and distance learning materials); to improve the quality and quantity of instruction (through participant training and staff development); and, to improve the capacity of the education sector's managers to plan and manage the education sector "systems" (through computerization of selected management function, construction of facilities to house managers, and participant training and staff development).

The combined foreign and local currency value of BEST budget support was approximately

US$45 million, or Z$65 million. The distribution of these resources, in terms of the strategy outlined above, the combined value of the resources were distributed as follows (in Z$):

Construction	29,800,000	(44%)	
OPEXers	14,000,000	(21%)	
Equipment	10,000,000	(15%)	
Learning Res.	8,800,000	(13%)	(Kits & Dist Educ)
Staff Dev	3,000,000	(5%)	
AED + Evaluations	2,000,000	(3%)	
	65,600,000	(101%)	

Institutionally, the resources were distributed as follows, again in Z$:

Min. Higher Educ/Min. Labor (Postsec insts. support)	35,000,000	(54%)
MOEC (Central)	18,000,000	(27%)
MOEC (Schools) (Kits, DLM)	9,000,000	(13.5%)
MOEC (Regions/Districts	1,800,000	(2.7%)
Unspecified Part. Training	1,000,000	(1.5%)
	63,800,000	(98.7%)

(The difference between Z$65.6 and Z$63.8 was the amount of the AED Contract and various Program and project evaluations.)

Within these institutions, BEST resources were used as follows (in Z$):

Min. Higher Ed/Min. Labor		
Construction	21,200,000	(59%)
OPEXers	14,000,000	(39%)
Equipment	500,000	(1.3%)
Staff Dev	500,000	(1.3%)
	36,200,000	(100.6%)
Min. of Education and Culture (Central)		
Construction	8,600,000	(49%)
OPEXers	0	
Equipment	7,700,000	(43%)
Staff Dev	1,400,000	(8%)
	17,700,000	(100%)
Min. of Education and Culture (Schools)		
Learning Resources	8,800,000	(99%)
Staff Dev	100,000	(1%)
(Primary)		
Construction	0	
Equipment	0	
OPEXers	0	
	8,900,000	(100%)

Min. of Education and Culture (Reg/Dist)		
Equipment	1,800,000	(100%)
Staff Dev	0	
Construction	0	
OPEXers	0	
	1,800,000	(100%)
Unspecified Participant Training		
Combined LT and ST	975,000	(100%)

By looking at resource use in this manner it is possible to see how little was used for human resource development within any of the institutions, relative to other resource usage.

Foreign and Local Currency Use. BEST provided substantial budgetary support to the education sector during 1985-1988, when the majority of BEST allocations were expended by the Government of Zimbabwe, including approximately 25 percent of education's capital budget during this period **(50)**. Table 1 shows distribution of BEST foreign and local currency resources, by major categories. The approximate actual US and Zimbabwe dollars provided by BEST are provided.

Table 1: BEST Currency Distribution

Currency	Technical Assistance	Commodities	Training	Construction
US$	10,400,000	4,000,000	1,000,0000	0
(100%)	(68%)	(26%)	(6%)	
Z$		120,0001	12,000,000	5,000,000
27,000,000				
(100%)	(1%)	(27%)	(11%)	(61%)

The majority of BEST foreign currency supported technical assistance. Most technical assistance funds financed 46 operational expert (OPEX) lecturers[1], primarily at the Harare Polytechnic and University of Zimbabwe **(33,34)**. While it was intended that BEST train local counterparts to replace American lecturers, only nine Zimbabweans completed masters programs under BEST sponsorship and have returned and are teaching at the tertiary level.

[1] The exact number of OPEX personnel, funded by BEST and ZIMMAN respectively, was difficult to determine, because of shifts in support for specific experts between these two programs. However the general magnitude of the numbers is believed to be correct.

The second largest amount of foreign currency purchased commodities. The commodities consisted of mini- and microcomputers, packaged software, scanners, and answer sheets for the Examinations Branch, Ministry of Education and Culture. Resources also went to developing customized software.

In participant training, four Ministry of Education and Culture staff went to the United States for long-term training; approximately 70 persons received short-term participant training in United States.

The local currency portion of BEST was a direct result of USAID wanting to provide the Zimbabwe private sector access to scarce foreign currency. The Commodity Import Program (CIP) generated over Z$45 million in interest and principal for the education sector. Almost all of the CIP was used by the private sector. A cursory inspection of the files with the Controller USAID/Harare showed that only US$200,000 out of US$29 million went to the public sector. This more than exceeded the 80 percent requirement established for the CIP.

Over 60 percent of the local currency generated for BEST supported the construction on Mutare Technical College, Masvingo Technical College, and the Harare Institute of Technology (formerly the National Vocational Training and Development Center). Commodities--the distance education materials and technical kits--account for another 27 percent of local currency. Training and technical assistance received 11 percent. About $Z 750,000 remains, and will be allocated to staff development.

The existence within BEST of a commodities import component as well as a currency-funded technical assistance component resulted in the equivalent of a US$33 million reduction in the balance of payments deficit. Without BEST, the Government's ability to secure needed spare parts and commodities would have been reduced.

Scope of Work Query: In allocating resources, what was the balance between qualitative reform, redistribution to improve equity, efforts to improve quantitative output for the education and skills training systems, and the need to use resources more efficiently and cost-effectively?

Examining BEST projects on the dimensions of qualitative reform, equity, quantitative output, and efficiency and cost-effectiveness produces a mixed picture; one that is often clouded by the relatively recent project construction and implementation. In other words, it is too soon to tell. On balance, it would seem that BEST had more impact on efforts to improve quality of education than in the other areas.

Qualitative Reform. Qualitative reforms have been initiated by the development and distribution of distance learning materials and technical kits. The distance learning materials provided teachers with curricula materials for instructional use and skills reinforcement. The technical kits provided a hands-on approach to technical education, an approach that supplemented the traditional academic curriculum that is provided in Zimbabwe's schools.

Participant training and staff development in the Curriculum Development Unit are credited with

contributing directly to a climate and capability for initiating reforms, such as the localization of examination and development, and the production and distribution of distance learning materials and technical kits. Technical assistance resulted in the development and implementation of the Bachelor's of Technology degree program.

Reducing Inequities. Several BEST projects helped to reduce educational inequities. The distance learning materials reached rural communities and, in a more limited way, helped to upgrade the skills of teachers in more remote locations. The widespread distribution of technical kits were felt to have reduced some of the inequities encountered by rural schools. The construction of technical colleges at Masvingo and Mutare further assisted in the distribution of tertiary institutions.

While these BEST projects expanded educational opportunities and reduced spatial disparities, they did not alleviate gender inequities, nor do they appear to have been designed to do so. For example, at Mutare Technical College three male hostels were built, but only one female hostel was built. However, the degree of gender inequality in access to educational resources and opportunities is not horrific. It is true that fewer females proceed to secondary school, but 42 percent are enrolled; it is true that females are concentrated in traditionally female vocational education courses, but they are increasingly found in emerging areas such as computer science.

Quantitative Output. As the foregoing suggests, BEST projects helped make the rapid expansion of secondary and tertiary education possible and the delivery of primary education marginally more effective. Both the distance learning materials and technical kits reached hundreds of thousands of children. Although the facilities are underutilized, the construction of Mutare and Masvingo should help in the expansion of better trained workers. It is not realistic, however, to make claims that BEST alone was responsible for quantitative increases in education.

Efficient and Effective Use of Resources. The development of distance learning materials appears to be one of the most cost-effective activities of BEST. Some 33 million copies of learning materials in most subject areas benefitted students and teachers. Perhaps as important, the production and distribution of these materials opened up new relationships with the private sector that may have far reaching consequences in terms of cost recovery and efficiency.

The development of Zimbabwe's capability to score examinations is another BEST outcome with important cost considerations. This capability will save the country millions of dollars in foreign exchange annually. The construction of technical colleges may prove to have been a prudent financial move, but their underutilization at the present time reduces this likelihood.

Scope of Work Query: What factors caused projects to be selected, or rejected, for BEST funding?

While considerable effort of the BEST Working Group went into the development of a comprehensive set of criteria regarding project selection, the reality seems to have been that these criteria were used more to qualify a decision and prepare a more carefully developed proposal than to make a fundamental determination about the suitability of a proposal.

Three factors seem to have been essential to project development and selection: support of key

actors, existence on the Government's list of priority needs, and awareness of the availability of funding.

Support of Key Actors. The roles of the original Agency for International Development project officer, former Minister of Education, and former Chief Education Officer for Planning were critical. They were catalysts for generating ideas and developing a visionary agenda. In contrast, the area of technical education, which was in the Ministry of Labor at the start of BEST, did not have strong, visionary leadership capable of converting ideas into action, as the Ministry of Education.

List of Priorities. A second factor was the Government's list of approved, but unfunded, projects, provided through the Public Sector Investment Program of the Ministry of Finance, Economic Planning, and Development. A high ranking on this list established legitimacy and priority. For example, the decision to construct Mutare and Masvingo Technical Colleges, which utilized the majority of BEST local currency funds, could not have been made without PSIP support.

Awareness of Funding Availability. Knowledge of the existence of BEST resources generated project ideas. Sometimes this led to projects being approved but never implemented. This in turn led to the practice of shifting funds from approved but unimplemented projects to previously approved but underfunded projects. It is interesting to note how difficult it seems to have been for the BEST Working Group to receive proposals after 1987, when most of the funds had been obligated and when the composition of the Working Group changed. Approximately $Z 6 million remained in the bank for almost 3 years without any proposals for use. The Mission Director of A.I.D. had to prod the implementing agencies to develop proposals.

The BEST Evaluation Team found no evidence that alternative sources of funding were an active rationale for discouraging proposals. It is possible that proposals may have been screened using this criteria before review by the Working Group; on the other hand, donors tried to engage the Ministry of Higher Education in considering open discussions with all donors providing support to vocational technical education in order to maximize sources of funding, but this effort had no followup from Government.

Scope of Work Query: To what extent were activities included for BEST funding that could as easily have been funded from regular budgets?

Not surprisingly, one cannot definitively state that a BEST project would not have been funded if BEST did not exist. However, given the scope of activities funded out of BEST (particularly those of an innovative nature, such as the development of the distance learning materials and technical kits) it is probable that many of the non-construction projects would not have occurred. It is likely that construction of technical colleges would have been reduced and/or delayed. The foreign currency-funded training activities, which provided exposure to different perspectives and operations, may not have been possible without BEST. On the other hand, the availability of BEST funds for participant training did not result in this activity being carried out as intended.

BEST provided lecturers to the Polytechnics and University of Zimbabwe. Given the lack of foreign currency, the Government of Zimbabwe could not have provided these staff. They

helped relieve an already critical shortage of staff at the tertiary level. Construction of Mutare and Masvingo Technical Colleges were on the PSIP list, but unfunded. Debate about the localization of exams predates BEST, but progress toward implementation awaited BEST funding. To the extent that the computerization of regions and other projects depended on the purchase of foreign computers and commodities, and because of competing government needs and limitations on foreign exchange, these projects required donor assistance.

Conclusions. During the first decade of independence the Government made a substantial commitment to the expansion of the education sector, but did not link education sector expansion to a clear, implemented strategy of economic development. Government made policy changes to reallocate public resources within the sector, but fundamental inequities continue.

BEST's basic roles were to provide general budgetary support, promote innovations in curricula and learning resources, and use local currency primarily for infrastructure development at the tertiary level. Other important uses of BEST resources were the localization examinations and the training of teachers.

Insufficient Number of Trained Instructors

Context. The Rhodesian government was committed to sending the majority of the best qualified teachers to government schools, the majority of which were for European children. African education was largely the responsibility of missionaries and councils. Prior to independence only one teachers' college trained secondary school teachers, and only two government teachers' colleges trained primary teachers for all African schools. In 1980, there were only 27,000 teachers, with 9,000 being considered qualified. The situation for qualified African graduate teachers was aggravated by the fact that the Rhodesian Government paid them salaries similar to those paid to non-graduate European teachers. Teaching at tertiary institutions was reserved largely for Europeans, most of whom left for the private sector or South Africa immediately after independence, thereby contributing to the teacher shortage the country has faced since independence **(16)**.

Scope of Work Guidance: Assess the extent to which the availability of teachers and other staff improved over the period of BEST assistance and has been institutionalized.

Growth in the Numbers of Teachers. Since independence, more than 25,000 teachers have graduated from teacher education colleges in Zimbabwe, the majority of whom (over 16,000) have been primary teachers. At Belvedere Teachers Training College (BTTC), more than 25 percent of all secondary teachers (over 1400), each with a specialization in a technical subject area, have graduated in the period 1986-1989.

A.I.D. provided Z$16,835,000 for the construction of BTTC, US$704,000 and Z$480,000 for equipment, US$480,000 for computers, and US$30,000 for a tractor. In addition, Z$100,000 was allocated for the upgrading of primary teachers to teach in secondary schools. At Bulawayo Polytechnic, BEST contributed US$315,000 for computers, which enabled Computer Science to be added to the curriculum; an additional US$34,467 was spent to train staff for computer use at Bulawayo.

The growth in the numbers of teachers with technical subject preparation has resulted, in 1989, with 1,562 such teachers being placed in 1,502 secondary schools and 668 in the 4,504 primary schools. However, while the number of qualified technical teachers has increased, it remains insufficient to fully implement the Government's policy to have each secondary student take two technical courses, nor is the number sufficient to operate the technical colleges at capacity. For example, technical colleges currently have 33 percent vacancy rates. The prospects for filling these positions are not good, since better salaries and better job opportunities exist in the private sector.

Institutionalization. The construction of BTTC provided an important avenue for the regular provision of qualified teachers to the educational system. Furthermore, Belvedere is the site of an innovative project, where Belvedere teacher trainees spend one year of their field experience as full-time teachers. Given the number of untrained teachers in the system (32,986 in 1988), this represents a creative way to provide schools with semi-qualified teachers who can receive supervision and training experience while on site (52).

On the other hand, BEST funds were not utilized extensively or well for teacher education programs. For example, the teacher upgrading program was suspended in December 1986 following a plethora of implementation problems such as poor selection of candidates and inadequate curriculum (55).

Institutionalization of gains made will continue to be problematic as long as career enhancement issues remain unresolved. While the utilization and motivation of teachers was not a direct focus of the BEST program, the provision of curriculum materials (kits, distance learning materials, and computers) and the training of markers) may have had an indirect, positive impact on teachers.

However, major problems remain. In the technical subjects, for example, qualified teachers are not able to deliver technically competent teaching because of their sequence of training. After only one year of theoretical preparation, students at BTTC enter teaching practice, which means that they do not have an adequate subject-matter knowledge in the technical subject by the time they start teaching. Other problems include a bias towards teaching academic subjects, and the lack of opportunity within schools because of the lack of support from principals for technical subjects or the lack of adequate equipment and specialist classrooms. These factors have led to the under-utilization and low motivation of especially technical teachers in secondary schools.

Utilization of Other Staff. Steps have been taken with BEST resources to improve the utilization and motivation of other education staff, including technicians, analysts, and supervisors in regional and district education centers, computer centers, examination branches, and curriculum units, although these steps have been somewhat uneven.

Initial efforts in the Curriculum Development Unit included crash courses for distance learning materials' writers, teachers, and regional personnel and a wide range of interested individuals and groups. These meetings were limited, however, by the heavy pressure to produce materials as fast as possible for the rapidly growing school enrollment. In retrospect they do not appear to have been sufficient to provide the range of adaptation that was needed in materials at the time.

The Examination Branch, on the other hand, initiated and is continuing a successful, comprehensive training program for markers, team leaders, and regional chief examiners involved with the localization of exams project funded by BEST.

The BEST-funded project to assist the Ministry of Education and Culture in decentralizing certain functions has included extensive training. Much of this effort has been nullified by the lack of a coherent administrative structure offering opportunities for promotion, as well as the constant attraction of the private sector for trained computer operators.

Other efforts such as the upgrading of primary teachers for use in secondary schools did not provide the motivation required. However, the use of kits and distance learning materials, as well as the formal and informal training and review sessions related to them, are reported to have increased the interest and motivation in their use not only by teachers but also the Education Officers (EO) in each district. As reported in another section, the initial underutilization of technical kits resulted in training and reassignment of responsibilities among EOs for teacher/kit coordination and utilization in their districts.

Conclusions. The Government has taken a number of steps to increase the number of qualified teachers. BEST has contributed appreciably to this challenge through the construction and equipping of teacher and technical colleges, as well as in the use of distance learning materials and kits to provide underqualified teachers with better resources.

BEST resources have also been used to improve the utilization of other personnel essential to the improvement of education in Zimbabwe. However, all these efforts are limited by the existence of personnel policies that make it very difficult for Government to attract and retain qualified staff.

Inappropriate Instructional Curricula

Context. Prior to independence, curricula for European and African education was different. Curricula for African children was irrelevant to their local needs and the needs of a developing nation. The school curriculum was geared towards "O" and "A" level examinations. For African education the Rhodesian government de-emphasized scientific and technical education. Instructional facilities for African education were nonexistent because government budgetary allocations for this item were very meager compared to what was allocated for European schools. Even textbooks were not produced locally. Thus, the poor quality of black schools inherited at independence and the effects of an unprecedented expansion of schooling since independence prompted a concern on the part of the Government of Zimbabwe for qualitative improvement in the educational system.

Scope of Work Guidance: Assess progress under BEST Program in revising curricula and improving the relevance of materials.

BEST Curriculum Projects. BEST provided support for two curriculum projects: Secondary School Technical Kits (SSTK), and Distance Learning Materials (DLM). In the first project 1,142 secondary school technical kits were produced and distributed to 633 schools in both rural and urban areas. In the second project, more than 33 million distance learning materials were

produced and distributed to both rural and urban schools, at the primary and secondary levels, and in academic (e.g., mathematics) as well as technical (e.g., woodwork) subjects. The DLM Project was intended to provide supplementary learning materials to minimally qualified teachers at both primary and secondary levels. The SSTK Project was required to strengthen Government's objective of introducing technical education at secondary schools in order to a) counter the academic bias of the school curriculum and to b) provide students with basic skills for employment. An additional A.I.D.-supported curriculum program was ZIMSCI (Zimbabwe Science), which provided simple and cost-effective laboratory kits and supporting teacher/student manuals to poorly-equipped schools. (Appendix I provides a brief comparative description of three donor-supported "kit" approaches being carried out in Zimbabwe).

Contextual Relevance of the Curriculum. The relevance of the secondary curriculum materials was rated in four dimensions. In terms of relevance to the socio-cultural context of Zimbabwe, the materials sampled from both SSTK and DLM projects were closely related to the Zimbabwean context in terms of diagrams and pictures, scope and content, and activities and questions. In terms of relevance to teacher capacities, the distance materials could be easily followed by a minimally qualified teacher at both primary and secondary levels. In terms of relevance to learners, it was found that most of the materials could be used as self-learning modules by students. Finally, the materials and courses are relevant to the world of work so that students will acquire some of the knowledge and skills necessary for employment after graduation (**56, 57, 58, 59, 60, 61, 62, 65, 67, 69, 77, 78**).

Instructional Effectiveness. The instructional effectiveness of the distance learning materials, when judged in terms of rural schools with no texts to begin with, is only significant to the extent that they enabled minimally qualified teachers to have some basic, usable reference text with which to perform very elementary instruction. Similarly, ZIMSCI allowed unqualified teachers the opportunity to conduct simple science experiments without which science education in schools would be exclusively textbook-based. However, qualified teachers in better-equipped schools found distance learning materials inadequate ("too shallow") for preparing students for examinations and ZIMSCI insufficient for conducting more sophisticated experiments.

In the case of kits, instructional effectiveness was hampered by one principal factor: the lack of coordination in bringing together a qualified teacher, a complete technical kit, and a specialist classroom in many schools. It is important to note, however, that when instructional effectiveness is measured in terms of performance on examinations, the picture is bleak: currently, only half of the secondary students taking technical subjects are scoring correctly on more than 50 percent of the items in the Junior Certificate Exams.

Useful Inputs to Implementation of Curricular Reform. The most useful inputs to implementing the curricular changes were (a) the deployment of regional Educational Officers (EOs) who are subject-matter experts and can provide an important advising function to the local teacher; and (b) the development of localized examination content across subject areas. This localization process was strengthened through a close coordination among the key elements that make for an efficient examination process: the ongoing production, testing, and revision of specimen syllabi; the close involvement of teachers from the different regions; and the effective training of skilled markers.

Inputs that are still needed to further institutionalize curricular reform are (a) school-based innovations, which intimately involve the school head, experienced teachers, and the staff as a whole in the implementation process; (b) stronger coordination of supporting curriculum elements (e.g., a qualified teacher or a complete kit), which lead to successful implementation at the school level; (c) more effective means of reducing the persistent academic bias of many students and school heads; and (d) the provision of basic material support (e.g., a functioning photocopier) for running examinations.

Scope of Work Query: Did the program increase the availability of relevant vocational/technical training? What inputs or changes appear most useful? What inputs/changes are still needed?

One indicator of the increasing availability of vocational/ technical training during the BEST period is the number of students taking certificate exams in technical fields, as shown Table 2, which is based on Ministry of Education and Culture data:

Table 2

Number of Students Sitting for Junior Certificate Exams

	1984	1988
Woodwork	9,420	15,907
Metalwork	6,844	8,503
Food/Nut.	8,207	12,475
Fashion/Fab.	15,961	33,944
Technical Draft.	874	10,650
Building	4,167	11,849
TOTALS	**45,473**	**93,331**

(students can sit for more than 1 exam)

The steady growth in the number of technical courses available has been in direct response to the severe manpower shortage in the professional and technical positions. The emphasis on academic courses produces graduates who know a lot but cannot do anything. In the city of Harare it is not possible to get a job with less then five "o" levels, even for very simple positions not really demanding that level of knowledge.

The rationale for requiring technical courses in the high school was to prepare students for jobs while still in high school, making them employable by graduation. The Harare Institute for

Technology (HIT) currently offers a program for students with very little or no technical high school course work seeking training for positions with industry. Students spend the first 18 months at HIT; then they are placed with an industry, followed by 6 months back at the college. After the 6-month college experience, students return to industry for 9 additional months followed this time by three months of study back at the college.

Despite the numeric increases in access, those interviewed assert that current vocational/technical programs do not prepare secondary students adequately or provide them with the relevant technical information to be hired at graduation.

Similarly, secondary teachers have not been adequately prepared at Belvedere to teach vocational/technical subjects thoroughly, nor were the classrooms sufficiently equipped in most cases even for those teachers who were capable. An assessment of the availability of vocational education is hampered by the inconsistency in program delivery. The Evaluation Team found that better qualified and experienced teachers have gravitated to better-equipped and well-financed schools. On the other hand, inexperienced and unqualified teachers are concentrated in rural, poorly equipped schools where parents have limited resources to supplement school finances.

Where BEST was most useful was in increasing the pool of potential technical teachers. As the numbers of graduates increase it may be anticipated that current inequities in the availability of relevant technical training will be moderated. This, however, will require active government action in order to provide incentives for technical teachers to enter and stay in the teaching profession. A second major limitation in the provision of secondary vocational education is the lack of appropriate workshops and the necessary equipment. At this time very few resources are being devoted to overcoming these problems, and as pressures mount on recurrent expenditures it will be more difficult for schools in rural and poor areas to acquire and maintain necessary equipment.

BEST played a more positive role in increasing the relevance of the vocational training at the tertiary level--both for training teachers and future workers. In the area of producing skilled workers, the Bachelor's of Technology degree program, developed with technical assistance through BEST, represents a major investment in a new curriculum. The degree has established a needed link between theory and practice. However, it is too early to tell if it will have the desired result.

Another contribution of BEST was the provision of equipment and training to implement a computer science program at Bulawayo Polytechnic. This has been very successfully implemented. However, lack of equipment in other locations hinders effective utilization of BEST contributions. For example, Mutare Technical College is lacking automotive equipment, Mashvingo remains totally empty because of the lack of equipment and instructors, and two workshops at HIT are still without equipment. The 10 Apple computers at Belvedere appear to be unused, with no plans for making them available to students other than computer majors.

To be effective, vocational training should respond to labor market needs. As indicated elsewhere in this report, the development of curricular activities related to vocational technical training has not taken place within the context of human resource development plans based on

careful articulation of private sector needs and public economic development policies. There have been repeated suggestions by the donor community for the development of such a framework.

Scope of Work Query: What beneficiary groups appear most satisfied/least satisfied by curricular reforms?

Policymakers appear most satisfied with reforms that they believe made an impact on schools in both urban and rural areas. Teachers appear to be least satisfied with the curriculum reforms because they see little effort to support educational practice with good quality learning materials, adequate and well-maintained equipment, and sufficient classroom space. Obviously, those secondary students who have secured jobs related to their education are most satisfied. However, given the limited job opportunities for all school leavers, it may be anticipated that satisfaction will decline. One potential bright spot is the success that B. Tech graduates have recently experienced. While their numbers are very small, they are turning down job offers. Unfortunately, no information was available on how well the students finishing courses at the technical colleges are doing when they return to their employers or seek new jobs.

One abiding concern that was noted is the reported continuing preference for academic programs over vocational technical programs among teachers, school heads, and parents.

Inefficient and Inequitable Spatial Distribution of Instructional Facilities

Context. The inequitable distribution of resources before independence can be exemplified by the small number of primary (3,161) and secondary (197) schools existing at independence. Prior to independence, government support for education was directed towards schools in urban areas, primarily for European students, while the support of African students was left largely to the religious missions (16). In 1976, for example, there were 152 secondary schools for Africans, but the government was responsible for only 27 (18 percent) of these. By contrast, the government operated 33 (62 percent) of the 53 secondary schools (39). Since the European population is concentrated in two major urban areas, the inequities along both geographic and racial lines are apparent.

Scope of Work Guidance: Assess the degree to which disparities in physical facilities and other access factors have been reduced. Are mechanisms in place to maintain equity?

BEST Contributions. BEST contributed to improving the distribution of teachers, school facilities, and vocational and technical training. Examples of this contribution include: (a) assisting in building and equipping Belvedere Teachers' Training College, which is a factor in dispersing student teachers and technically qualified teachers to rural areas, especially in agriculture and building trades; (b) financing the construction of two technical colleges, and action that has aided in increasing the number of vocational and technical students at tertiary institutions throughout the country; and (c) assisting in the development of distance learning materials and technical kits, which have increased access to secondary education materials for urban and rural students and teachers.

Issues Which Effect Disparities. As indicated in earlier discussion, Government action on policies concerning the funding of capital and recurrent expenditures is needed to have a lasting impact on issues of inequities inherited at independence.

Since independence, the problem of inadequate numbers of schools in rural areas has been greatly reduced, as evidenced by increases in enrollment. What remains is the need to equip these schools on the basis of national standards, and assign more qualified teachers. The decision by the Ministry of Education and Culture to halt new school construction was a concerns about providing quality education at these facilities. Government needs to develop additional sources of funding for recurrent costs to equip and maintain classrooms and workshops in rural schools in particular. In addition, issues of teachers' houses and other incentives such as tax rebates and rural allowances also need further exploration if qualified teachers are to be attracted to rural schools and to maintain the momentum of initiatives funded by BEST have reduced some of the inequities.

Staff development is a mechanism for producing and maintaining equity. Historically, urban teachers have had more opportunities for staff development than rural counterparts. As Government seeks to improve the qualifications of teachers at all levels, both ministries of education will need to develop and implement staff development activities assure participation regardless of location. While there has been only a limited amount of funding available through BEST for staff development, neither ministry has demonstrated much initiative in seeking to utilize limited BEST funds for this purpose. In other words, the mechanism of staff development appears to be underutilized.

A policy has recently been adopted to send teacher trainees and newly qualified teachers to rural areas. Since individuals retain some flexibility in where they go, it is not certain how effective this policy will be. Many teachers prefer assignments in urban areas for both personal and professional reasons.

More funds are need for the technical kits so that CDU can increase the number and the quality of the kits. Educators (teachers and EOs) and employers at the local level need to be more involved in the planning of what kits should contain so that the kits are used more effectively and maintained more easily.

Transport problems are acute in all regions, but particularly in rural areas, and have a major impact on the issue of equity. Experience with the BEST DLM and SSTK projects demonstrated the vulnerability of efforts to this basic factor. Government and donors have to consider this problem more seriously in planning projects, since it has an immediate and direct effect on the efficiency and success of many activities that attempt to improve spatial disparities.

Another issue raised with the Evaluation Team related to improving the efficiency and effectiveness of activities which seek to overcome inequities in the distribution of facilities concerns autonomy for tertiary institutions. It was suggested that the Ministry of Higher Education decentralize its activities so that colleges are more autonomous than they presently are. The need for greater autonomy was raised in issues that ranged from closer financial ties to local industries and more options to develop their own staff development strategies, to more freedom in purchasing supplies locally.

Conclusions. BEST contributed to overcoming inequitable spatial distribution of facilities through support for the construction of new technical colleges at Mutare and Masvingo; construction and equipping of Belvedere Teachers' College; development and equipping of a computer science program at Bulawayo Polytechnic; and development and distribution of 33 million distance learning materials and over 1,100 technical kits, which reached most rural schools and enabled minimally qualified teachers to have learning materials with which to conduct basic instruction. Sustaining these efforts, however, will be hampered by inherited policies that do not adequately address resource generation and allocation issues.

Insufficient Planning and Administrative Capacity

Context. There are two contextual aspects of planning and administration in the education sector that are worth keeping in mind when considering what efforts were made through BEST to strengthen capacity to implement reforms. The first is historical consideration of the exclusion of Africans from widespread access to policymaking and implementation roles in the bureaucracy of the education sector. Prior to independence, the education system was highly centralized and controlled by Europeans. Strengthening the management capacities of Africans was not encouraged, and this practice existed from ministry level positions to regional Education Officers and the position of Headmaster (12).

Second, immediately after independence, the education sector became an important arena for implementing nation building reforms. It was a focal point for considerable activity; there was a climate of getting things done quickly, without the luxury of time for detailed analysis. Considerable progress was made in this sector in the construction of schools, especially at the secondary level, and in the recruitment and assignment of teachers.

Scope of Work Guidance: Assess the adequacy of the planning and administrative capacity for implementation of the reforms over the period of the BEST assistance and the degree to which it has been strengthened.

Critical Levels. The planning and administrative capacities at critical levels of the education system include those that are concerned with functions concerning the quality and quantity of human, material, physical, and financial resources of the institutions in the sector. This includes units and positions concerned with the recruitment, assignment, continued professionalization, and evaluation of the main category of human resources in the sector--the classroom teacher from primary to tertiary levels. It also includes units and positions concerned with the curriculum and the material resources used by teachers in implementing the curriculum. In the Ministry of Education and Culture the crucial point for planning, administering, and monitoring this activity is the CDU. In the Ministry of Higher Education this responsibility is shared between the ministry and individual institutions, depending on the category of institution.

Planning and monitoring the physical facilities of the education system is a third critical area. In Zimbabwe, the building section at the ministerial level has the responsibility, in consultation with regional officers. The fourth critical level is concerned with overall coordination of the other three functional areas, in terms of policy development and budget support and allocation.

Assumptions about Capacity and Evidence of Needs. Because of the rapid successes in getting construction and teacher recruitment activities underway during the first years of independence, there may have been an assumption that the education sector planning and administrative capacities were sufficient. At the start of BEST, there was not a systematic assessment of planning and administrative needs in critical function areas.

Is there a need to strengthen the planning and administrative capacities in the critical functions defined above? The serious problems related to underutilized facilities (54 percent in tertiary education) and equipment and the recruitment and retention of qualified teachers at all levels (only 65 percent of authorized positions in tertiary education filled) suggest there is a need. The delays in the development of a comprehensive human resource strategy also suggest that a need exists.

Use of BEST Resources. Relatively little use was made of BEST resources to address planning and administration needs. Only US$541,000 and Z$864,000 (out of a total of US$45 million) were spent on staff development activities aimed at strengthening planning and administrative skills outside of specific project activities. Other uses of BEST resources to strengthen planning and administrative capacities were tied to the following activities: decentralization of the Ministry of Education; localization of examinations; administrative aspects of the distance learning materials and technical kits projects; efforts to develop a National Education Service Center; development of the Human Resources Research Center of the University of Zimbabwe; and, support for training of selected individuals.

In part, the low level of utilization was the consequence of the decision process for allocating BEST-funds. This process responded to proposals from units within government, and proposals tended to come from operational units for project activities. To the extent that projects identified the strengthening of planning and administrative capacity as a need, funding became available for this purpose. Only two BEST supported activities can be cited as efforts to address management capacity needs on a broader-than-project basis: the development of the Human Resources Research Center, as provider of specialized management training for the education sector; and, the efforts to decentralize certain management activities of the Ministry of Education.

Decentralizing the Ministry of Education. In the case of the Ministry of Education decentralization effort, the basic thrust of the effort was "infrastructure"-oriented (that is, the installation of a computerized management information system, with most of the resources utilized for equipment and software, purchase and installation), rather than building capacity for decentralization through human resource and organization development approaches.

When the results of the initial efforts to make comprehensive changes in the education system were not forthcoming, the Government of Zimbabwe made the decision to decentralize. BEST supported this process by approving Z$1.7 million supplemented by US$1.8 million in foreign currency, to provide the hardware, software, and technical assistance required to plan and install the system. The choice reflected the assumption that some management capability existed and that the increased information, flexibility, and communications achieved through computerization were critical elements.

Decentralization of the Ministry of Education through computerization has not yet had any major effects, since the system is not fully operational. The proposal concerning this project was considered to be one of the best planned proposals received by the Working Group. Intensive efforts were made to select equipment, train people, and proceed with a three-stage process of implementation. However, implementation has been hampered by numerous factors, including underestimation of the time required to install a complicated computer system in a weak regional structure; competition for appropriated trained personnel from the private sector; and limited willingness of central administrators to turn over the authority, responsibility, and resources required for effective decentralization.

Localization of Examinations. Perhaps the most dramatic effect of efforts to strengthen planning and administrative capacity can be seen in BEST's support of the Examination Branch project. This project will gradually localize examination capability, reducing dependency on the Cambridge Examinations Syndicate. By localizing the examination process, it is expected that examinations, and the curricula and syllabi on which they are based, will have increased relevance to Zimbabwe's education need. In addition, localization of the examination process will save the nation considerable amounts of foreign exchange.

BEST financed the construction of the building in which the Examinations Branch is located, and the acquisition of the hardware, and some of the technical assistance required to develop the localization process (US$2.4 million and Z$2.9 million). This process involved careful coordination with both the Cambridge Examinations Syndicate and the ODA.

Using BEST resources, the Examinations Branch developed an excellent system of management and staff training, and implemented an examination process handling 700,000 examinations annually. The cost effectiveness of this project is seen in the following information. The Examinations Branch receives only Z$10 million from the Ministry of Finance for its expenses and collects Z$54 million in fees. When the system is complete, the potential for saving 4 million Pounds Sterling a year exists. During the past six years the following savings have been realized, according to information from the Examinations Branch:

1984-	Z$ 271,787
1985-	Z$ 506,477
1986-	Z$ 1,396,322
1987-	Z$ 2,674,782
1988-	Z$ 3,514,926
1989-	Z$ 4,297,976
TOTAL-	Z$ 12,662,270

Two problems have affected progress of this project toward greater efficiency and institutionalization. The first is the serious failings of the procurement processes, which have delayed the upgrading of the computer equipment and have cost the country foreign exchange. The second is the inadequate financial and administrative support system. The personnel structure to support decentralization, pay examination personnel promptly, and maintain security of the examinations appears to be seriously deficient.

Administrative Aspects of Distance Learning Materials and Technical Kits. Two other BEST-supported projects developed and demonstrated an increased management capacity that had important effects on the use and mobilization of resources: the distance learning materials project and the technical kits project.

The training design, consultation, and continuing communication as well as the delivery of distance learning materials was initially seriously affected by the pressure to meet the enormous increase in enrollment and the lack of understanding of the complex printing and logistical problems. With the recognition of production and distribution problems, the Curriculum Development Unit (CDU) incorporated publishers into its system and encouraged them to publish school materials and use the CDU distribution system. They also charge a portion of the costs of the materials. The teacher can now choose from the catalogues from CDU and from publishers who produce approved materials and purchase the material at a local books ore. Training, followup, and continuing communication are improved partly by more effective incorporation of regional and district officers.

The BEST-supported technical kits project encountered a great many problems related to communication, contracting, and transportation. The CDU totally decentralized the system by sending the kits to the Regional E.O. for technical education, which is a more effective means of distribution, matching, and control. Although there are still problems with incomplete kits, security and mismatching of space, kit and teacher availability, spare parts, and consumable. The Regional E.O. is in a better position to handle these problems and communicate with the CDU. The CDU also charges schools a portion of the costs of the technical kits as a part of a cost recovery program.

National Education Service Center. In the Program Assistance Approval Document (PAAD) for BEST, the highest priority activity indicated by the Ministry of Education and Culture was the development of a National Education Service Center (47). It was to be the vehicle for consolidating a number of functions carried out by various units of the Ministry that relate to continuing improvements in teacher education, curriculum development, instructional materials development, testing, and psychological services.

However, from the early stages of development of this project there was no specific plan that specified how the consolidation of departments and functions was to be carried out. The development of the National Education Service Center was a vision of an earlier Minister, and when he left, issues of design and integration were not guided by the same vision. Nevertheless, construction efforts went forward and BEST financed the construction of the building, which will house the CDU, Non-Formal Education, Psychological Services, and the Zimbabwe Integrated National Teacher Education Course (ZINTEC). Construction has been completed, but there are no plans to take other actions needed to consolidate and integrate functional activities.

Tertiary Level. In the case of the tertiary level of the sector, any potential interest in strengthening planning and management capacity was complicated by major bureaucratic reform, shifting the ministerial level offices from Ministry of Labor, Manpower Planning, and Social Welfare to the new Ministry of Higher Education. It is likely that in this bureaucratic transition there was little opportunity to consider where the planning and administration strengths and weaknesses were, and whether and how they might be strengthened using BEST.

Some senior level officials were provided opportunities for special training, and the learning gained from these experiences were regarded as very useful in helping to guide some management decisions.

Although there are frequent references to a "national vocational training system" in program documents related to BEST and other donors, the reality is that Zimbabwe does not have a national vocational training system. While BEST and other donor assistance might have been used to develop the necessary planning and administrative capability to create and operate such a system, proposals of this nature have not been forthcoming from the Ministry of Higher Education.

The only tangible outcome of BEST to strengthen planning and administrative capacity at the tertiary level has been the creation of the Human Resources Research Center at the University of Zimbabwe. BEST and other donor funds were used to initiate the development of the Center, which now has the capability of providing training, research, and consulting services for the education sector (64).

Conclusions. The BEST program does not appear to have had substantial impact on critical levels of planning and administrative capacities of the educational training system, with the exception of the Curriculum Development Unit of the Ministry of Education and Culture. The need to strengthen management capacities was underestimated, and the level of resources made available for this purpose was far short of the need. The result is that infrastructure projects and equipment are underutilized, decentralization efforts are seriously weakened by human resource problems, and there is a persistent problem of planning gaps throughout the Ministry of Higher Education.

IV. SPECIFIC ISSUES OF PROGRAM DESIGN AND IMPLEMENTATION

Alternative Mechanisms

Scope of Work Query: What did the BEST mechanism add to the allocation process for local currency projects? Did it improve the design or management of the underlying projects?

BEST added an interministerial mechanism (the BEST Working Group) for decisionmaking and coordinating related to the use of local currency and foreign exchange resources of the program. The BEST Working Group concept provided for interaction, which attempted to integrate sectorwide needs with project level responses. Project documentation suggests that critical questioning of projects were conducted during Working Group deliberations. Those involved with BEST felt that, in general, the Working Group had a positive effect on the design and management of projects by requiring consideration of activities from the perspectives of several ministries, and by creating some sense of external accountability.

Cost Effectiveness and Sustainability

Scope of Work Guidance: Determine whether the results/outcomes of the overall program are cost effective and cost efficient, resulting in cost savings systemwide.

Cost Effectiveness. Cost effectiveness, which was a criterion for project approval, does not appear to have been a priority of the BEST program, nor of the planning of Government educational programs at the start of BEST. This may be because most projects were committed during a hectic phase of Zimbabwe's development (42). It is only in the last few years, as budget deficits have climbed, the value of the Zimbabwean dollar has fallen, and concern over economic and employment development have grown, that cost issues have become important.

As indicated in the following paragraphs, some BEST projects seem to have contributed to cost containment, while others did not. However, because there is a lack of data and not enough time has passed to allow some activities to have matured, the Evaluation Team's analysis is more qualitative and suggestive than quantitative and definitive.

Construction Projects. The construction of Mutare and Masvingo Technical Colleges may turn out to be good infrastructure investments by BEST. Today, both are underutilized and underequipped and are serving fewer students than anticipated. However, they were built when construction costs were rising steeply, a trend that has continued unabated. It is unlikely that Mutare and Masvingo could be built today for less than Z$29 million, instead of the Z$20.5 million that they cost.

Distance Learning Materials. The unit cost for distance learning materials produced with BEST funding was 9.6 cents. This project helped alleviate the critical shortage of books found in

Zimbabwean schools. While the Government of Zimbabwe goal of one book for two children was not achieved, there has been substantial headway. The Ministry of Education found the materials to be substantively and conceptually suitable, and useful in curriculum reform.

Localization of Examinations. This project has already saved the Government over Z$12 million in foreign exchange, and when fully implemented, will provide substantially more savings.

Local Currency Account Management. Until 1989 the Government of Zimbabwe was lax in putting local currency into interest-bearing accounts. Now the account generates interest. The Auditor in November 1989 calculated the lost revenues for all commodity import programs by failure to deposit in interest-bearing accounts, but the BEST portion of this was not desegregated, and no figure is available.

Participant Training. Long-term participant training clearly did not achieve the goals desired by A.I.D. or the Government of Zimbabwe. This activity was originally planned to train over 30 Zimbabweans in the United States, who would return to Zimbabwe before the OPEXers returned to the United States. The objective included cross-training that could not occur because of the delay in identifying Zimbabweans to study abroad. Only 11 people were eventually sent to study for Master's degrees. Nine received their degrees and returned and are teaching in Zimbabwe. However, the per-trainee costs were reasonable. The average cost for a master's degree was US$37,675.

Use of OPEXers. Forty six OPEXers were brought to Zimbabwe through BEST. Most were assigned to Harare Polytechnic, where they were crucial to the development and implementation of the Bachelor's of Technology degree program. It is too early to tell how effective the development and use of this degree will be to Government's efforts to improve technical training in Zimbabwe.

Scope of Work Guidance: Determine if the Government of Zimbabwe can support the recurring costs of the program and assess the sustainability of progress in the education sector toward the objectives of the BEST program.

In order to judge the sustainability of progress in the education sector it is necessary to place the discussion within the context of an increasingly vulnerable economic environment.

The Economic Situation. Since 1980 Zimbabwe's real economic growth rate averaged 3.2 percent, about the same as the population growth rate. While the situation improved in 1989 to a 4.9 percent growth rate and a population growth rate of 2.9 percent, the economy has not expanded quickly enough to absorb the increased number of students leaving school and looking for jobs in the formal labor market, nor to generate sufficient revenues and foreign exchange to sustain programming **(6)**.

The situation appears bleak. As reported earlier, it is estimated that in the period 1988-1997, 2 million Zimbabweans will be entering a job market which may only be able to absorb twelve percent of this total **(6)**.

In order to encourage foreign investment and job creation (as well as to reduce the budget deficit to 5 percent by 1994-95) Zimbabwe is implementing a structural adjustment and trade liberalization program. In the short term this may result in shifting a larger portion of education costs back to parents, reducing and slowing the growth of government expenditures for education. However, Government staff interviewed showed a reluctance to identify areas of cost containment and in many instances expressed a belief that education would escape the mandate to constrain education spending.

Government education expenditures at 22 percent of the recurring budget are comparable to figures in Botswana, South Africa, and Lesotho and higher than Zambia. However, as a percent of GDP, Zimbabwe's expenditures are about 10 percent higher than average. When compared with a sample of 19 African countries in 1985, Zimbabwe ranked first in education's share of central government expenditures, a common trend in early independence elsewhere **(20,30)**.

In BEST's Program Assistance Approval Document, 1988 expenditures (in constant 1982 Z$) were estimated at Z$650-700 million **(47)** However, the Government of Zimbabwe's projected growth of 8 percent was not achieved, and even with increased budget deficits education expenditures in 1988 only reached Z$511 million or Z$446 million in constant dollars. This erosion was due to slower than anticipated growth and increasing inflation. However, as the economy has performed better recently expenditures have increased. In 1990 they are estimated at Z$1532 million or Z$686 in 1982 dollars. This is an increase of 175 percent in real terms since 1982.

At present no projections of education expenditures are available from the Government. Therefore, the Evaluation Team projected expenditures based on three options: 1) a straight line based on the last 4 years; 2) a model that drops 1 percent in each of the 5 years); and 3) a model that drops 2 percent in each of the 5 years. It is our best guess that the "truth" lies somewhere between model 1 and model 2 (assuming good weather) and that the government remains committed to the structural adjustment goal of a 5 percent budget deficit by 1994-5. The results, as well as projected unit costs, are presented in Table 10, Appendix E.

Sustainability. In this economic environment, with government's commitment to revitalize the economy, one quickly concludes that sustainability is difficult at best. In principle, the planning process is supposed to consider the recurring costs of a project at the time of funding. How recent and how effective such considerations are given is questionable within the education sector.

Given the economic situation described in the previous section and the fact that salaries as a percent of recurring expenditures are now 90.2 percent, it is difficult to see how any additions to the recurring budget are achievable. Both the Planning Appraisal Unit (PAU) of the Ministry of Finance and the Expenditures Branch of the Ministry of Education agree that the current level of spending (in real terms) is not going to continue.

The PAU states that staff reductions will be necessary; costs will increasingly be passed to the user; and, education's proportion of the budget will decline, in favor of productive sectors of the economy (e.g., private sector initiatives) and competing social service sectors. The Ministry of

Education plans the following: increases in user fees; unfilled vacancies; and a continued freeze on system expansion.

How might this situation and these actions affect the sustainability of some BEST-funded projects? It will become increasingly unlikely that the Government will provide necessary equipment and staff for technical and teachers' colleges, which adversely effects BEST projects at Mutare, Masvingo, Bulawayo, and Belvedere Colleges. The lack of foreign currency adversely impacts on the sustainability of foreign manufactured equipment acquired through BEST. The low salaries paid to local teachers, lecturers, and civil servants exacerbates the problem of staff turnover and the need for continuous staff development to maintain current capacity. This is due to salary compression in the public sector and less competitive wages at the middle and higher levels in comparison to the private sector.

Some BEST-funded projects will probably be maintained, although they may not reach the same beneficiaries. The distance learning materials project may continue to shift printing and distribution to the private sector, although it is anticipated that the CDU will remain instrumental in material development. If there is a total shift to private sources, the ability to provide low-cost instructional materials may be compromised. Hopefully, even if a system evolves that exclusively uses outside printing (and more expensive) outlets, low-income pupils will be provided access, through the government's purchase of the materials for distribution or through the issuance of some type of redeemable coupon.

The technical kits will increasingly be provided using locally-produced tools. Practicality dictates, however, that some tools be foreign-manufactured. To the extent that foreign currency requirements are a major part of maintaining the technical kits, it is less likely that the kits will be sustained.

The localization of examinations activity is likely to be maintained by Government as a recurring expense. Sustainability is already evident as experienced Zimbabwean markers start to train new ones; however, finding ways of securing material support will be critical to the success of localization in the long term.

The computerization of regions is a project that is conceptually sound and has trained many Zimbabweans, but it is plagued with problems, including a constant loss of trained personnel to the private sector. The project, if it is to be sustained, would benefit from a thorough review of objectives and the establishment of expectations consistent with the capacity of the Ministry of Education and Culture. This review should include a consideration of alternatives to keep the project adequately staffed and the machinery in working order.

In addition to the question of being able to sustain the projects from the perspective of fiscal resources, project sustainability requires qualified staff and effective project management. The strong impression is that the quality of management may have declined in recent years as committed and experienced staff leave government service for more lucrative positions in the private sector. Staff turnover remains a significant factor in government operations, and some civil servants feel that lethargy is occurring in more government operations.

Management Issues

Scope of Work Guidance: Assess the BEST Working Group both as a formal committee for approving plans and allocations and as a working mechanism for program design and implementation.

Decision Making and Training. The BEST Working Group has generally functioned as a mechanism for coordinating interministerial views and actions related to planning and implementing BEST funds.

In the early days of BEST it was important in two respects: it made decisions regarding the allocation of BEST funds; and, in an informal staff development sense, it was an important arena for practicing the application of predetermined criteria to specific project proposals, and for enforcing requirements for preparing project proposals. As personnel representing the implementing ministries on the Working Group changed, the Working Group served as an important source of institutional memory regarding BEST, and also served an important training function for younger staff members regarding the importance of and processes in interministerial coordination.

It appears that as the amount of funds remaining to be allocated by the Working Group decreased, so did the importance of the Working Group, judging on attendance information.

An important limitation to the effectiveness of the Working Group is that it did not have a mandate to consider its work within a larger context of needs concerning the planning and coordination of resources and programs aimed at improving basic education and skills training in Zimbabwe. As noted elsewhere in this report, Zimbabwe lacks an effective structure to plan human resource development in a comprehensive manner. There is no systematic process for donors, industry, and government to plan jointly the needs of the sector. The BEST Working Group sought to provide some leadership in addressing this issue, and through the efforts of several of its members attempted to facilitate informal donor coordination and consultation **(38)**. In its planning and review of BEST activities, the Working Group took into consideration the activities of other donors.

The BEST Working Group was the key instrument in the project development and approval process. It provided the possibility of additional resources, but it also required the presentation of detailed plans. The history of the Group indicates that many plans were turned down, that well worked out plans were approved, and that limited reporting to the Group was necessary. The limited evidence that is available indicates that there was an improvement in both the quality of the plans and that interministerial consideration added to the value of the plans. However, there appears to have been very limited monitoring of the implementation, which accounts for many of the follow-through problems in some BEST activities.

Scope of Work Guidance: Assess processes involved in the financial allocation, utilization and accounting of the program resources, i.e., vote of credits and disbursement. Were the resources efficiently and effectively managed from a financial management, budgeting, and

auditing point of view?

Budgeting. Initially BEST project budgets were subject to significant manipulation, up and down. Budget preparation tended to be poorly done. Since the mid-term evaluation and external audit, budget preparation and review have been improved.

Funds Disbursement. As the BEST interim evaluation reported, the implementing agencies send forecasts of expenditures to the MFEPD, where the funds are released in installments. The implementing agencies send reports monthly of actual expenditures to MFED.

On paper the system is intended to ensure that expenditures do not occur before allocations and that expenditures conform to the Vote of Credit. However, as reported in the interim evaluation and subsequent review of accounting procedures by an external accounting firm, expenditures have occurred prior to approval and allocation from BEST funds, and when expenditures have exceeded allocations the source of the additional funds has not been identified. These problems are not specific to BEST; they are a genuine problem of resource allocation.

A.I.D. has attempted to provide the Government as a whole with technical assistance and training (through an accounting firm) to correct such problems and upgrade staff capacities. After one year this project still is not completed, because the Government has yet to identify staff to be trained.

It should be noted that Government payment procedures jeopardize BEST projects. For example, the localization of exams is facing administrative problems and turnover of markers because of the slowness by Government in paying markers. Similar complaints affect staff development as hotels refuse to accept government vouchers.

Financial Reporting. USAID requires monthly financial reports on the BEST program. The reports are prepared by the MFEPD, based on preliminary reports from the implementing agencies. These reports have been plagued by lateness and inaccuracies. As a result, USAID had an accounting firm prepare a review of Government accounting systems and implementing procedures. The review confirmed that the Government has, on paper, reasonable accounting systems; however, they are rarely implemented according to standards (37).

The Ministry of Education agreed that financial reports had been late. It indicated that there had been a lack of communication with the Ministry of Finance. In the last year, reports have been received on a more timely basis, although inaccuracies persist.

A.I.D. also requested an accounting firm to examine the management of Commodity Import Programs within the Mission and at the Government of Zimbabwe. Based on the firm's recommendations, the Mission will be developing a computerized management system for CIP and assigning a staff member to oversee CIP matters.

The interim evaluation report recommended that discrepancies in allocation figures between A.I.D. and the Government of Zimbabwe needed to be resolved (55). In general, this has now been done, although it required persistence on the part of the A.I.D. controller's office.

Auditing. As the foregoing descriptions of resource allocation, budgeting, and financial reporting show, the financial management of BEST had numerous problems. However, the BEST Evaluation Team found that BEST money was used for BEST projects. This conclusion is consistent with the Inspector General Audit Report completed in March 1990. While the report found underutilization of buildings and nonuse of equipment, it did not find that basic fiduciary trust requirements were violated (36).

Scope of Work Guidance: Assess any changes as a result of BEST activity in Government of Zimbabwe procedures for developing, implementing, or managing and monitoring project activities.

While BEST cannot claim responsibility for the changes, the National Planning Agency (NPA) has initiated both structural and procedural changes that should have a positive effect on project activities in Zimbabwe. The Project Appraisal Unit (PAU) of NPA has incorporated project assessment procedures that are similar to those introduced by BEST. The Monitoring and Evaluation Unit of NPA has recently been created and its staff, who have been regular attenders of Working Group meetings, have used the Working Group as a opportunity for learning about approaches and procedures for monitoring donor-assisted project activities.

The CDU/Ministry of Education has learned from the logistical difficulties of distributing technical kits made possible through BEST that it needs to include requests for transportation equipment in its project requests from other donors that also support the development and distribution of learning kits.

CDU involvement through BEST in the development and production of distance learning materials has resulted in several changes that have far reaching implications. One, CDU has developed a revolving fund for recovering the costs of producing distance learning materials. Two, CDU has also created a working relationship with publishers for the printing and distribution of distance learning materials.

In a different area of operations, BEST had an impact on the assignment of responsibilities of Education Officers (EO) in regions. Prior to BEST, EOs were considered subject matter generals, in terms of certain responsibilities. However, when it was learned that BEST's technical kits were being underutilized because many EOs were not familiar with the subject matter content of the kits, the Ministry of Education began to assign responsibilities EO based on subject matter specialties. This not only facilitate the utilization of kits, but had positive effects in other areas as well.

Scope of Work Guidance: Assess the effectiveness of the BEST contractors in managing the provision of expertise, training, and equipment.

The BEST contractors fulfilled their obligations in a professional and timely manner. In the area of OPEXer recruitment the Academy for Educational Development's performance was particularly noteworthy. AED had considerable responsibility for assisting in the design, procurement, implementation, and monitoring of computerization activities in various BEST funded projects. In most cases, the status of these activities suggests that AED's role was well

done. In the case of the computerization of the Ministry of Education and Culture's decentralization activities, this has not gone well despite a well developed plan. It is not clear what responsibility, if any, the contractor may have for these shortcomings.

Innovations

An intention of BEST was to provide resources for introducing innovations in the education sector. A number of innovations that grew out of BEST, a selection of which, as identified and reported through interviews, are discussed below.

BEST gave the Ministry of Education the resources needed to try out different approaches to upgrading the skills of teachers and to assess these efforts. Given the large number of under-qualified teachers in Zimbabwe, especially at the secondary level, this is an important consideration. An example of this was the BEST-supported project for upgrading primary teachers.

Another innovation introduced through BEST, and directly related to the need to improve quality of educational activities, was the development of curriculum standards based on demonstrable terminal competencies in selected courses. A BEST-supported OPEXer developed a model for developing competency-based syllabi. This model is now being used by inter-institutional curriculum committees from vocational technical colleges for given courses, to assure standardization of competencies.

The mass production and distribution of distance learning materials and technical kits was an innovation for Zimbabwe that would not have been possible without BEST. As an outgrowth of the efforts to develop, produce, and distribute these learning resources throughout the country, there have been many lessons learned which will continue to affect other such efforts for a long time, as discussed elsewhere in this report (e.g., the partial privatization of the production and distribution of distance learning materials.

Incremental budgeting and limited resources make it difficult to promote innovations in government. Generally, donor funding is a primary source of the support for innovations, and in Zimbabwe's education sector, BEST was an important vehicle for supporting innovation.

Scope of Work Query: Did the structure of procedures of the BEST program facilitate exploration of such outcomes and/or experimentation with innovations? Would a more explicit objective of encouraging innovation or experimentation have been likely to contribute to more innovation and/or aggressive exploration of alternatives?

It is not clear from any of the project documentation or interviews how aggressively innovation was pursued in subproject development. The stated criteria for making resource allocation decisions did not explicitly include innovation. Insofar as these criteria were used for decisions, it may be inferred that had there been an innovation criterion, more proposals may have had such features.

However, a general knowledge of the limitations and risks on development and diffusion of innovations in developing countries suggests that the number and quality of innovations

generated by BEST is reasonable, given the lack of priority given innovation in decision criteria.

It is likely that the proposal structure that the Working Group used for resource allocation decisions, combined with the predisposition of key actors in this structure toward trying new ideas and the general spirit of starting anew in Zimbabwe, created a climate that led to the BEST-supported innovations.

Generalizations re Innovation Encouraged: Types and Factors. It is difficult to draw conclusions based on the examples in Zimbabwe. There were innovations in "strategic" products (that is, products that had specific strategic objectives such as distance learning materials) and in procedures (development of competency-based syllabi in teacher training programs).

As is usually the case in the development of innovations, the closer the innovator is to the end-user of the innovation, the more likely it is that the innovation will be successfully adopted. What seems to be the case in BEST is that many, if not most, of the innovations were generated in the CDU of the Ministry of Education, where there was leadership with vision and strong teaching experience and an affinity for looking at problems from a classroom perspective.

In the tremendous demand for qualified teachers, additional resources provided under the BEST program allowed the Government of Zimbabwe the flexibility to experiment with a range of teacher education initiatives. One such program, funded directly by BEST, involved upgrading 378 primary teachers to teach in the newly established secondary schools. Evaluations across the range of teacher preparation programs are currently underway to establish the relative costs and benefits of diverse routes to teacher qualifications (**52**).

There does not appear to be a relationship between the amount (or type) of resources available, and the degree of innovation. Most BEST projects were not innovative within the Zimbabwean context; and, while the Ministry of Education indicated that BEST provided the opportunity for experimentation and innovation, few resources were directed to projects that deserve the innovative or experimental label. The inability of the BEST Working Group to allocate over Z$6 million during the last three years suggests that lack of funds was not an obstacle to innovation. It is likely that lack of information about the availability of these funds, especially at the classroom level, explains more about underutilization than anything else. In general, innovations are more likely to be initiated and spread where there is a climate of a free and open exchange of ideas and experiences among those who have the power to make decisions. If the education sector wishes to stimulate innovations that are cost-effective in the classroom, it will need to create the necessary conditions, and working with donors and industry, assure a steady pool of resources for responsible innovation development.

Since there is a unit within the Ministry of Education and Culture with responsibility for nurturing innovation, it may be useful to consider how to continue promoting the development of innovations in education without BEST resources. In general, it is more likely that innovations will be forthcoming in areas where there are rewards or benefits for making changes, and where the initiative for making changes lies with the end-user of the change. To the extent that education reform in Zimbabwe is under increasing pressure to find approaches for maintaining or improving quality of education and reducing government cost of education, and encourages the initiation of innovations from all who have a stake in the educational system, it is possible

that innovations may develop in all areas, as discussed below.

Management. More innovations are likely to come in this area as parents are asked to contribute to the financing of education. This is going to be in the form of more powerful school boards. At the MOEC level, if decentralization is going to be innovative, it will require that authority and responsibility be delegated to the regional level and to the individual school and classroom. However, if this begins to happen it will be necessary to develop a system of accountability to assure that innovations are more efficient and effective than what they are intended to replace. This will require a much more developed system of monitoring and evaluation, as well as mechanisms for assuring the demonstration and diffusion of successful innovations.

Financing. Innovations in cost-recovery methods are likely to be initiated in the education sector, as budgetary pressures mount. Precautions will be needed to protect against deleterious, long-term effects of shifting costs towards those groups and individuals who lack ability to pay for educational goods and services.

Personnel Utilization. The introduction of distance education will mean that the role of the traditional teacher is changing as teachers begin to use the radio and print media for instructional purposes. Innovations will be needed in the way teachers are trained to use these materials more effectively, and in the way regional and district personnel are expected to distribute and monitor the use of these materials.

Curriculum materials. More innovations will continue to come from this area as the institutional and intellectual capacity of the CDU is strengthened. This unit has pioneered the use of cost-effective supplementary materials for schools.

Instructional Technology. Innovations in this area tend to be costly, and are not likely to occur without strong donor and/or industry support. For example, the introduction of Computer-Assisted Learning (CAL) or Computer-Assisted Instruction (CAI) will remain an unattainable goal for the majority of the children in this country because costs of computerizing (hardware) are prohibitive. Nevertheless, where resources have been found to introduce proven instructional technology, the effects on the quality and costs have been positive.

V. LESSONS LEARNED

Recommendations

Although BEST is terminating, the following actions are recommended to alleviate constraints that BEST sought to reduce.

1. To promote more efficient and equitable distribution of resources the Government should continue introducing policies and procedures that promote cost-recovery, provided there are safe guards against penalizing those who truly cannot afford fee-based goods and services. For example, reducing the grant portion of the support for those in tertiary education for those who have the means to pay at the time of enrollment, or through a higher percentage of the deferred loan portion of the subsidy.

2. The Government should implement policies that facilitate recruitment and retention of qualified teachers at all levels, to increase the numbers of qualified instructors. This should include increasing staff training opportunities for instructors through more carefully developed plans, and better use of donor resources. For example, BEST has remaining funds for staff development for which specific plans have not been developed. These funds will only cover local currency costs. CIDA has staff development funds for that will cover foreign exchange costs. A Task Force might be created that allows educators in a given subject area to develop proposals that combine the use of these funds carry out staff development activities which involve acquiring scarce skills outside Zimbabwe and diffusing them throughout a subject area through in-country training programs.

3. The Ministry of Education and Culture should include in its decentralization efforts actions that involve teachers and school heads more in planning more appropriate instructional curricula.

4. The Government should consider the following actions in order to promote more efficient and equitable spatial distribution of instructional facilities and staff: (1) reduce the number of subjects offered and ensure that each subject offered at primary and secondary levels has at least one qualified instructor per facility, with incentives to assist in raising the qualifications of other instructors; (2) require better coordination of foreign instructors and the availability of the instructional equipment they require and the instructors they are to train; (3) institutionalize the spontaneous communication between teachers and the Curriculum Development Unit of the Ministry of Education and Culture to improve use and distribution of materials; and (4) decentralize activities of the Ministry of Higher Education, with individual institutions having more autonomy and responsibility for strengthening programs in response to private sector needs.

5. The Government should carry out a needs assessment in critical areas of planning, administration, monitoring, and evaluation as the basis for plans to strengthen planning and administrative capacity. Donors should require strategic plans at ministry and institutional levels as a condition of new donor aid.

BEST Experiences/Lessons

1. As regards more effective education generally, BEST demonstrated the difficulty in achieving the close coordination needed among the different elements to produce effective learning results. That is, having the right technical kit delivered to a qualified teacher who has an appropriately equipped classroom requires very careful planning and coordination, which are skills generally in short supply in newly formed educational systems. The lesson learned here is that people at the implementation level (i.e., the teachers) need to be involved in the planning of such activities, and that coordination needs to be carefully planned where different levels or subsystems come together.

2. Related to this is the lesson that activities that are going to be carried out on a large scale need to be developed and tested on a small scale first, in order to identify and correct all the problems of design and implementation. Pilot projects for technical kits and distance learning materials would have identified many of the implementation problems encountered. In short, the process should involve three steps: learning to do the right thing (effectiveness); learning to do it right (efficiency); and THEN doing it big (expansion).

3. There is a need for continual involvement by recipients as stakeholder at the regional level and in schools at all levels in critical planning and monitoring activities. Many of the learning resources could be better utilized if those who were to use them (teachers) had more involvement in the development and monitoring of the use. At the tertiary level, underutilization of facilities might be lessened significantly if the industries intended to benefit from these institutions were involved more closely in all phases of institutional planning and operation. Where this has been done, as in the case of the Bulawayo Computer Science Department, the response and support has been important to the successful operation of the program.

4. The Government and donors need to agree to plans and processes to enhance local capabilities to maintain equipment and to obtain appropriate spare parts beyond the life of the donor-assisted project, and in ways that minimize foreign currency demands. This can be achieved by training local personnel to service equipment such as computers.

5. Program assistance efforts such as BEST need to take steps to allocate resources more carefully over longer periods, in order to provide followup assistance in efforts that are working well and merit diffusion, and to respond to new crises and opportunities within the sector. For example, now that there is an environment more conducive to cost-recovery within the education sector, it would have been very useful to have more resources available to assist government in considering various policy options.

6. A significant shortcoming of BEST, which is typical of most donor-assisted efforts in either project or program assistance modalities, was the lack of balance in allocations among human and nonhuman resource development components. Failure to allocate sufficiently for human resource development reduces the effectiveness and threatens the sustainability of infrastructure and system-strengthening activities such as campus

construction, management information systems installation, and curricular reform.

7. Program-assisted efforts generally have less emphasis on specific quantitative outcomes, such as normally found in the logical frameworks of projects. Monitoring and evaluation efforts are concentrated on adoption and implementation of policies and regulatory reform and generally qualitative review. In Zimbabwe, the role of BEST can be validated as supportive of the explicit policies of the new government to promote equity, expansion, and cost savings. Steps are built into the program to develop more specific goals and outcomes as needs become clearer, or to link the program assistance to specific projects that have more quantitatively measured outcomes, as was done in BEST through its structure of projects.

8. Any form of assistance needs to fit the situation for which it is intended if, it is to be successful. The BEST Program seemed to fit the needs of Zimbabwe at the time of its design and initial implementation. The policy framework had been established by the new government. The needs were: budgetary support and foreign currency; fast, flexible programming of resources; and a relative degree of independence (freedom from micromanagement), assured by a necessary infrastructure and management capacity. The major emphasis of BEST was in infrastructure development: constructing buildings. Zimbabwe had the construction design skills, as well as the contract management skills and financial accounting system, to handle these activities relatively well. When the program supported other types of activities that required more highly developed planning and management skills in the educational bureaucracy, at all levels down to the individual school, the program did not work as well, and needed more project management inputs in terms of planning, coordinating and monitoring than was available.

9. The availability of program and project assistance modalities in the same sector at the same time, such as BEST and ZIMMAN, give both the donor and the host government operational flexibility that seems to outweigh the disadvantages of management complication, which are generally the results of staff turnover rather than other considerations.

APPENDIX A

APPENDIX A

PERSONS INTERVIEWED

BEST Working Group, members in attendance at meetings on August 28 and September 12, 1990

Ministry of Education and Culture

Mr. Carlaw, Nonformal Education, MOEC
Mr. Chapwanya, Finance Division, MOEC
Mr. Chinodya, EO Distance Education, CDU
Mr. Chinyanga, EO Science/Math, Computer Manager, Examinations Branch
Mr. Chipendo, Deputy Regional Director/EO Technical Subjects, Mashonaland West
Mrs. Fay Chung, Minister
Mr. B. Doolabh, EO Geography, Bulawayo Regional Office
Mr. Gordon, Deputy Regional Director Secondary Education, Bulawayo
Mr. Gwata, Nonformal Education, MOEC
Mr. S.M. Hadebe, Regional Director, Bulawayo
Mr. Kadziya, Acting Deputy Principal, Chinhoyi #2
Mr. Kajawu, Finance Division, MOEC
Mr. L. Kariramombe, Finance Officer, Examinations Branch
Mr. Kumalo, EO, Examinations, Bulawayo Regional Office
Mr. Mabandla, Head Test Department and Research, Examinations Branch
Mr. Madamombe, Finance Division, MOEC
Mr. A. Maruve, Head of Technical Services, Highfield Secondary
Mr. Masango, CEO Examinations, MOEC
Mr. Mashingaidze, Director of Administration, Examinations Branch
Mr. Mashingo, Deputy CEO, Technical and Vocational Education, MOEC
Mr. Mashoko, Principal, Highfield Secondary
Mr. Mashonda, EO English, Examinations Branch
Mr. P.R. Masuku, Headmaster, Entubane School
Mr. Mlanga, Headmaster, Allen Wilson High School
Mr. M. Mnonge, Acting EO, Technical Subjects, CDU
Mr. Daniel Moyo, Computer Specialist, Bulawayo Regional Office
Mr. J. Moyo, Planning Division, MOEC
Mr. Mpofu, Deputy Secretary, Administration, MOEC
Mr. Mpofu, Headmaster, Kulamane School
Mrs. Mpofu, EO, Home Economics, Bulawayo Regional Office
Mr. Muchova, Chief, Supplies Branch, MOEC
Mr. V. Mukova, EO Technical Subjects, Harare Region

Mr. M. Munonge, Acting CEO for Technical Subjects
Mr. Murume, Acting Regional Director, Chinhoyi
Mr. Ndwere, EO Examinations, Mashonaland West Region
Mr. Nembawara, EO Geography, Examinations Branch
Mrs. Nziramasanga, EO Home Economics, Examinations Branch
Mr. Pfukani, Planning Division, MOEC
Mr. Shambare, EO Shona and Ndebele, Examinations Branch
Mr. Shavi, EO Building, MOEC
Mr. Siziba, Headmaster, Amhdopdre School
Mr. I. Tanganyiwa, CEO Planning, MOEC
Dr. Vere, Deputy CEO, CDU

Ministry of Finance, Economic Planning, and Development

Mr. Chirimuuta, PSIP Division, Ministry of Finance
Mrs. R. Faranisi, Monitoring and Evaluation Unit, National Planning Agency
Dr. S. Mahlahla, Director, National Planning Agency
Mr. O. Matshalaga, Under Secretary for International Aid
Mr. N. Mudzinganyama, Monitoring & Evaluation Unit, National Planning Agency
Ms. M. Mumbure, Project Appraisal Unit
Mr. Nyamatore, National Planning Agency
Mr. S. Tangwena, Project Appraisal Unit
Ms. A. Ziso, Project Appraisal Unit

Ministry of Higher Education

Dr. Thomas Bourdillon, Teacher Education, University of Zimbabwe
Mr. Chaduka, Deputy CEO, Teacher Education, MOHE
Mr. C. Chibanda, CEO, Planning and Policy, MOHE
Mr. Chigiji, Under Secretary ZIMDEF, MOHE
Mr. Chigumera, Chief Financial Officer, MOHE
Dr. B. Chivore, Teacher Education, University of Zimbabwe
Mr. Dholdlo, Lecturer, Bulawayo Polytechnic; masters' degree funded through BEST
Mr. Gerald Evans, Vice Principal, Bulawayo Polytechnic
Mr. Gumira, Finance Division, MOHE
Mr. Sisco Gweru, Head, Technical Education Division, Belvedere Teachers' College
Mr. Hassan, Vice Principal, Belvedere Teachers' College
Mr. Kariwo, Director of Planning, University of Zimbabwe
Mr. MacDonald, Harare Institute of Technology
Mr. Macharaga, Lecturer, Bulawayo Polytechnic; masters' degree funded through BEST

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Mr. L. Maenzanise, Library, Belvedere Teachers' College
Mr. Mafuwe, Agriculture, Belvedere Teachers' College
Mr. Magaza, Under Secretary for Finance, MOHE
Mr. Makawa, Chief of Administration, MOHE
Mr. A. Mandimika, Principal, Harare Institute of Technology
Mr. Michael Manmbo, Deputy Secretary, Policy and Planning, MOHE
Dr. Manyuchi, CEO, Research and Evaluation, MOHE
Mr. Mavhomvo, Harare Institute of Technology
Mr. Mbviso, CEO for Curriculum Development, MOHE
Mr. Mhonde, Lecturer, Metal Work, Belvedere Teachers' College
Mr. Mlambo, Harare Institute of Technology
Mr. Mlhanga, Lecturer, Computers, Belvedere Teachers' College
Mr. K. Muchemwa, CEO, Teacher Education, MOHE
Mrs. T. Mudzi, Deputy CEO, Research and Evaluation, MOHE
Mr. M. Munetsi, Director Industrial Training/Technical Institutions, MOHE
Mr. V. Mupinda, Finance Division, MOHE
Mr. Myambo, Harare Institute of Technology
Ms. Ndlovu, Lecturer, Home Economics, Belvedere Teachers' College
Mr. Nube, Principal, Bulawayo Polytechnic
Mr. Nyoni, Principal, Harare Institute of Technology
Mr. Serere, Agriculture, Belvedere Teachers' College
Mr. Sisimayi, Director, Learning Resources
Mr. Sithole, Lecturer, Wood Work, Belvedere Teachers' College
Mr. B. Taderera, Education Officer, Buildings, MOHE
Mr. Tshuma, Lecturer, Buildings, Belvedere Teachers' College

USAID/Harare

Ms. S. Bishop, Training Officer
Mrs. D. Cutshall, Controller's Office
Mrs. A. Herrick, Mission Director
Mrs. M. Llewelyn, Controller
Mr. T. Nare, Finance
Mr. D. Pickett, ARD Office
Mr. E. Rojas, REO
Mr. F. Zobrist, DCM

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Others

Mr. V. Barnes, PPC, USAID/Washington
Ms. H. Bernoy, Vocational Education Consultant
Mr. R. Blair, former Registrar, University of Zimbabwe
Dr. G. Chekenyere, former HRDO, USAID/Harare
Ms. E. Eckman, SIDA/Harare
Mr. S. Haruzizishe, Regional Manager of AMTEC, Bulawayo
Mr. C. Kanyuchi, former Chair, BEST Working Group
Mr. A. Klapp, Assistant Regional Representative, UNDP/Harare
Dr. R. Klauss, former Chief of Party, AED/BEST Project
Dr. V. Levine, Education Consultant, former BEST OPEXer
Mr. L. MacKay, Senior Economist, World Bank/Harare
Mr. P. Mabandle, National Executive Secretary, Zimbabwe Teachers Association (ZIMTA)
Mr. D. Manyika, Personnel Director, Cold Storage Commission
Dr. F. Method, PPC, USAID/Washington
Mrs. E. Norman, Advisory Council for Bulawayo Polytechnic
Ms. G. Paine, Program Planning Advisor, CIDA/Harare
Dr. R. Shortlidge, USAID/Botswana, former HRD Officer/Harare
Mr. Sonnenberg, GTZ, Harare Institute of Technology
Mr. F. Tuzo, HRD/Education Officer, CIDA/Harare
Mr. Webster, Manager AMTEC, Bulawayo

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APPENDIX B

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FOCUS GROUP INTERVIEWS

Apart from statistical summaries, the research team for the evaluation of curriculum and teacher education under BEST employed the following qualitative methodologies most appropriate for providing direct answers to questions listed in the scope of work:

- Individual interviews with 37 persons, including policymakers, principals, teachers, and educational officers in the regions. The purpose of these interviews was to determine the perspectives of actors at different levels of the educational system: generally from policy formulation in the Ministry to program development in the CDU and Examinations Branch, to regional implementation in the different regional offices, to educational practice at the school level.

- Focus group interviews with two groups of teachers. One group consisting of nine teachers, was at Highfield Secondary School, and the second group, with seven teachers, was at Chinhoyi Secondary School. The focus here was on the impact of teacher training and the curriculum materials on classroom practice.

- Systematic classroom observations with six teachers (three at each school) with the focus on a) the use and availability of technical kits, b) the use and availability of supporting equipment (e.g., a workbench), c) the respective roles of teachers and students in the usage of kits, distance learning materials, and equipment, and d) teachers' areas of competence in three knowledge domains: subject-matter knowledge, pedagogical knowledge, and knowledge of the classroom.

- Site visits to the Curriculum Development Unit, Regional Offices, and schools to determine the process of curriculum development, the preparation of examinations, the storage of equipment, and the adequacy of specialist classrooms.

- Content analysis of documents related to BEST. These include program proposals made to the BEST Working Group, samples of curriculum materials developed for both SSTK and distance learning materials, and various evaluation reports produced at different stages of the BEST program.

APPENDIX C

APPENDIX C

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APPENDIX D

APPENDIX D

SCOPE OF WORK

ARTICLE I - TITLE

Basic Education and Skills Training Sector Assistance Program (BEST) Evaluation

ARTICLE II - OBJECTIVE

This is a final evaluation of the Basic Education and skills Training Sector Assistance Program. The evaluation purpose is to assess the effectiveness of the program in helping Zimbabwe overcome key constraints to its planned expansion of education and employment skills training. The overall issues for the evaluation are the following:

a. whether zimbabwe has met is objectives of expanding and redistributing its education and skills training systems, with special emphasis on its success in improving cost-effectiveness and equity within the overall system.

(b) whether the budget support and technical assistance made available udner BEST was significant in enabling zimbabwe to meet its objectives.

(c) whether the five constraints to which the BEST program was directed have been overcome or alleviated, and the role of the progam in doing so.

(d) whether A.I.D. has provided budget support, technical assistance and commodities as intended and whether zimbabwe has had the expected institutional, management and planning capacities to make effective use of the resources made available under BEST.

(e) whether the program planning, financial allocation and implemenation mechanisms under the BEST sector program approach compares favorably with other approaches in terms of overall impact, policy dialogue, cost-effectiveness, sustainability or ease of implementation, particularly as compared with a similar amount of fully projectized assistance or of general budget support.

A key evaluation issue is the effectiveness of the BEST program in providing support to the overall reform and expansion effort of the Government of Zimbabwe. Best was implementation through allocations of local currency and foreign exchange against specific project requirements of the implementing ministries. These specific project activities were but one part of the larger refrom beng implemented by the Government of

Zimbabwe with its own resources and rescorces available from other external donors. The BEST program objectives were to be met not just through the specific outputs of the subprojects but through the additional implementing capacity and program managememt flexibility these allocations provided for the overall reform. Therefore, the evaluation needs to make judgements at three levels. At the first level, the evaluation needs to assess the degree to which the GOZ sectoral objectives were fulfilled. At the second level the evaluation needs to assess the degree to which the BEST program objectives to alleviating specific constraints were achieved. At the third level the evaluation needs to review the effectiveness with which the subproject allocations were utilized and the degree to which the subproject objectives were fulfilled. Note: It is possible the evaluation could reach different conclusions on the three levels.

The evaluation results will be used by both A.I.D. and the Government of Zimbabwe. The evaluation will be useful to USAID as a source of feedback on the appropriateness of its policies and the effectiveness of the implementation procedures used for this grant. For the Government it will highlight those constraints which have not been eliminated entirely and which will require a continuing allocation of resources and management attention. Useful information will also be generated for other donors considering assistance in the education sector in zimbabwe.

Finally, the evaluation of the Best program is expected to draw out a number of generalizable lessons from the Zimbabwe experience for possible application to donor assistance toeducation sector reform in other countries. The education reforms and expansion in zimbabwe are in several important respects unprecedented, and the BEST sector program assistance is one of the few large examples of a nonproject assistance grant in support of education sector reform.

ARTICLE III - STATEMENT OF WORK

The evaluation shall review the overall achievement under the Government of Zimbabwe's program of education and skills training reform, shall review the degree to which the program restraints were address and shall examine a number of specific performance and program design issues which may provide lessons for application in other contexts.

Two separate indepth assessments are being prepared and will be available for the evaluation team. The first is an assessment of all the construction projects carried out by the USAID/Zimbabwe regional engineer. This report will be incorporated in the final report. Also, consultants from the University of Zimbabwe have been contracted to evaluate the Brothers' Book project (a sub-project of the BEST program). Their findings will aslo be incorporated in the final evalualtion of the BEST program.

A. ZIMBABWE EDUCATION SECTOR REFORMS

1. Quantitative Achievement in Education

Review quantitative progress in education, comparing 1982/1983 abd 1988/1989 data on key dependent variables such as: total enrollments; participation rates for age cohorts; unit costs; student dropout, completion and achievement rates; and other indicators of the relative success of the reform, disaggregating each for gender and rural-urban comparison to the extent data permits.

2. Quantitative Achievement in Skills Training

Review quantitative progress in employment skills training comparing 1982/1983 and 1988/1989 data (or other years) on key dependent variables such as: total enrollments; diversifcation of field of study; unit costs; student dropout and completion rates; employment rates of the graduates; and other indicators of the relative success of the reforms disaggregating each for gender and rural-urban comparison to the extent data permits.

3. Beneficiaries by Gender

Differentiate the beneficiaries of both education and skills training reforms by gender.

4. Beneficiaries by Rural: Urban

Differentiate the beneficiaries of both education and skills training reform for rural and urban comparison.

B. CONSTRAINTS TO EDUCATION AND SKILLS TRAINING

1. Limited and Inequitable Allocation of Resources

Assess the extent to which the program led to increased Zimbabwe budget allocations allocated consistent with the reform objectives.

- In allocating resources, what was the balance between qualitative reform redistribution to improve equity, efforts to improve quantitative output from the education and skills training systems and the need to use resources more efficiently and cost-effectively?

- What factors caused projects to be proposed for BEST funding? On what basis were projects discourage -- low priority, inefficient use of funds, existence of alternative source of funds?

- to what extend were activities included for BEST funding which could as easily have been funded from regualr budget?

2. Insufficient Numbers of Trained Instructors

Assess the extent to which the availability of teachers and other staff improved over the period of the BEST assistance.

- did the numbers of qualified elementary, secondary and vocational/technical teachers increase?

- did the project succeed in institutionalizing means of providing qualified teachers on a continuing and cost effective basis?

- what steps were taken to improve the utilization and motivation of available teachers?

- what steps were taken to improve the utilization and motivation of othe education staff, including the technicians, analysts and supervisors in the education centers, computer centers, examination branches and curriculum units?

- what strategies were considered to ensure equitable promotion and other wise provide career motivation to key education staff?

3. Inappropriate Instructional Curricula

Assess progress under the program in revising curricula and improving the relevance of materials

- did the program improve the quality, relevance and instructional effectiveness of the curriculum in elementary and secondary schools? What imputs or changes appear most useful? What appear still needed?

- did the program increase the availability of relevant vocational/technical training. What inputs or changes appear most useful? What appear still needed?

- what beneficiary group appear most satisfied/least satisfied by the reforms?

d. Inefficient and Inequitable Spatial Distribution of Instructional Facilities

Access the degree to which disparities in physical facilities and other access factors have been reduced, particularly between rural and urban areas.

- did the program improve the distribution of teachers, school places and vocational/technical training to rural areas and othr geographically dispersed regions of Zimbabwe?

are mechanisms in place to maintain equity?

what initiatives appear most needed to reduce remaining disparities?

What was the utility of distance teaching materials for overcoming spatial distribution problem?

5. Insufficient Planning and Administrative Capacity

Assess the adequacy of the planning and administrative capacity for implementation of the reforms over the period of the BEST assistance and the degree to which it has been strengthened over the period of BEST assistance.

- did the program strengthen administrative, plannning and management capacities at various critical levels of the education and vocational/technical training system?

What were the effects of the capacity improvements on the use of resources? On mobilizing other resources? On management of resources at the local level?

What is the impact of the Education Service Center? On planning and management? On quality reform?

C. SPECIFIC ISSUES OF PROGRAM DESIGN AND IMPLEMENATATION

1. Alternative Mechanisms

Review the mechanisms used prior to BEST for managing CIP-generated local currency, recruitment of OPEX personnel and placement of external training? What did BEST add that was not possible through other mechanisms?

- What did the BEST mechanism add to the allocation process for local currency projects? Did it improve the design or management of the underlying projects?

- What would have been the effect had GOT budget support to top up expatriate allo[illegible] under existing expatriate recurement mec[illegible]nisms rather than using the USAID contractor and OPEX mechanism?

2. Costs and Cost-Effectiveness

Determine whether the results/outcome of the overall program are cost effective and cost efficient, resulting in costs savings system-wide.

Determine if the Government of Zimbabwe can support the recurring costs of the program and assess the sustaninability of progress in the education sector toward the objectives of the BEST program.

3. Management Systems

Analyse the management and monitoring system of the program, and assess any problems that arose during the implementation of the BEST program.

- Assess the BEST Working Group both as a formal committee for approving plans and allocations and as a working mechanism for program design and implemenatation. What differences might arise if such a Working Group included other donors? How important was the responsiblity for allocation of funds to effective functioning of the working group for coordination, dialogue and planning purposes?

- Assess the program planning process within the implementing Ministries and evaluate the BEST program from the point of view of of program managers in the beneficiary ministries.

-Assess processes involved in the financial allocation, utilization and accounting of the program resources efficiently and effectively managed from a financial managment, budgetting and auditing point of view?

- Assess any changes as a result of BEST activity in Government of Zimbabwe procedures for developing, assessing, implementing or managing and monitoring project activities.

- Assess the effectiveness of the Best contractors (the Academy for Education Development (AED) and the Institute of International Education) in managing the provison of expertise, training and equipment.)

4. Innovations and Unintended Outcomes

Discuss any innovations generated by the program and any unintended outcomes in the implementation of the BEST program.

- Did the structure or procedures of the BEST program facilitate exploration of such outcomes and /or experimentation with innovations? Would a more explicit objective of encouraging innovation or experimentation have been likely to contribute to more innovation and/or more aggressive exploration of alternative?

- Can any generalizations be down as to what types of innovation are encouraged by a program assistance approach such as BEST? What innovations are less likely?

- Is innovation a result of the flexibility, the extra resources, the access technical assistance or other factors?

- Are innovations more likely to be in the area of management, financing and personnel utilization or curriculum, materials and instructional technology?

- Is innovation related to the amount or type of resource available? Would more resources have led to more innovation?

5. Lessons Learned

Assess the lessons learned from the design and implementation of this education sector grant and their possible relevance to other education sector reform programs.

D. METHODS AND PROCEDURES FOR THE EVALUATION

The evaluation shall be conducted by inerviews with representatives of the Government of Zimbabwe, USAID/Zimbabwe, and consultants to the project, and by analysis of program and projet documents, by surveys and data field visits and by collecting financial, education and other program output data from the listed institutions.

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The evaluation will be conducted over approximately a seven week period, beginning on or about February 10, 1990. Approximately 2 days of preparatory work will be done at the USAID office. The consulting firm shall spend five weeks interviewing the USAID project Manager, the major contractor (THE ACADEMY FOR EDUCATIONAL DEVELOPMENT, INSTITUTE OF INTERNATIONAL EDUCATION), the host country agencies' principal counterparts and all the other institutions associated with project implemenation and their beneficaries.

At approximately the end of the third week of interviews, the evaluation team will arrange a workshop of at least one-half day in duration to meet with members of the BEST Working Group and other available people with knowledge of BEST activities to discuss progress emerging issues and lessons and areas in which assistance to clarify understandings or evaluation objectives appears needed.

Two weeks are allocated to writing the evaluation report in Harare and briefing USAID/Zimbabwe and the Government of Zimbabwe on the evaluation results.

The contractor will report to the Deputy Mission Director, USAID/Zimbabwe.

Before the preparatory work commences at the USAID office, the AID project manager will make available copies of the Project Paper, the Implementation Agreement and otherrelevant documentation.

The contractor will be responsible for arranging all local travel and for all secretarial, computer and logistical assistance.

E. PERSONNEL REQUIREMENTS (The Evaluation Team)

The contractor will provide a project manager and an evaluation team consisting of the following persons: -

1. EDUCATIONAL PLANNER/SYSTEMS ANALYST: - The Education Planner will be responsible for assessing the efficiency of the overall program planning and design, the priorities reflected in the project selection and overall sectoral accomplishments.

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2. EDUCATION ECONOMIST/FINANCE ANALYST: - The Economist will assess the economic impact and benefits of this program and will review the budget allocations to determine additionality, sustainability and the degree to which the funding priorities were allocated to increase equity as well as efficiency.

3. VOCATIONAL/TECHNICAL EDUCATION SPECIALIST: - The Vocational education/Techinical Training Specialist will assess the overall vocational/technical training effort, focusing on physical plant and equipment, technical college staff training, cost-effectiveness of the expanded capacity and the quality, relevance and effectiveness of the training relative to Zimbabwe's current and projected needs for additional trained workers and in-service training.

4 CURRICULUM/TEACHER EDUCATION SPECIALIST: - The Curriculum and Teacher Education Specialist will analyse the curriculum reform and localization of examination process, the impact of the distance education materials, the education tehcnical kits and other instructional inputs. He/she will also assess the teacher training and in-service training components of the program.

5. INSTITUTIONAL DEVELOPMENT/ADMINISTRATION SPECIALIST: - The Institutional Specialist will assess the various activities aimed at developing and strengthening the institutional capacity of the ministries in financial management, planning, administration, logistic systems and other areas. He/she will also look at the linkages between strengthened central capacilities and the efforts to decentralize managment and encourage community initiatives in support of local schools.

The additional members are suggested, preferably Zimbabwe nationals with substantial experience with the edcuation reforms of the last decade. These are:

6. STATISTICIAN/BUDGET ANALYST: - The statistician/budget specialist should be fully familiar with the relevant data bases and evaluation systems in use in Zimbabwe. He/she will be responsible for preparing statistical analyses as needed, for reviewing the adequacy of the data base and reporting procedures and for helping to assess the adequacy of available financial, planning and budget documentation.

7. SOCIAL SCIENTIST/RURAL DEVELOPMENT ANALYST: - The social scientist/rural development specialist will be responsible for assessing the degree to which redistribution objectives have been accomplished, for interpretting data on rural-urban and gender disparities and for keeping the team informed on other contextual factors which amy improve understanding and ability to interpret events and actions in each of the areas for the evaluation.

It is desirable that at least one member of the team have previous experience with the design, management or evaluation of sector reform assistance, preferably with nonproject assistance approaches.

The contractor, in consideration of the evaluation reporting requirements, will propose the level of effort.

ARTICLE IV - REPORTS

REPORTING REQUIREMENT

The evaluation report shall address the issues delineated in the Evaluation Statement of Work. The report shall organize materials prepared in response to the Statement of Work in confermance with the format presented in the AID EVALUATION HANDBOOK GUIDELINES OF APRIL 1987 (See Evaluation Report Format). The full evaluation report shall organize materials responding to the Statement of work and shall include findings, conclusions and recommendations and any necessary appendicies. It shall also include an executive summary not to exceed three pages.

The contractor shall submit three copies of a draft report to USAID/Harare no more than seven weeks after the date of commencement of the evaluation.

Within two weeks of submission of the draft report the contractor will receive comments on the report from USAID/Zimbabwe and the GOZ; the contractor shall then respond to those comments and submit twelve copies of the final report to USAID/Harare no later than two weeks after receipt of comments.

ARTICLE V - TECHNICAL DIRECTIONS

Technical directions during the performance of this delivery order will be provided by the Deputy Mission Director and Mr. Claude W. Reece, PDO, USAID/Zimbabwe pursuant to Section F. 3 of the IQC contract.

ARTICLE VI - TERM OF PERFORMANCE

A. The effective date of this delivery order is---------- the estimated completion date is ----------.

B. Subject to the ceiling price established in this delivery order and with prior written approval of the Project Manager (see block 5 of the Cover Page), Contractor is authorized to extend the estimated completion date, provided that such extension does not cause the elapsed time for completion of the work, including furnishing of all deliverables, to extend beyond 30 calendar days from the original estimated completion date. The contractor shall attach a copy of the Project Manager's approval for any extension of the term of this order to the final voucher submitted for payment.

C. It is the contractor's responsibility to ensure that Project Manager-approved adjustments to the original estimated completion date do not result in costs incurred which exceed the ceiling price of this delivery order. Under no circumstances shall such adjustments authorize the Contractor to be paid any sum in excess of the delivery order.

D. Adjustments which will cause the elapsed time for completion of the work to exceed the original estimated completion date by more than 30 days must be approved in advance by the Contracting Officer.

EVALUATION REPORT FORMAT

The format for the evaluation report is to be:

-- Executive Summary

-- Table of Contents

-- Body of the Report

Appendices

The executive summary shall state the development objectives of the activity evaluated; purpose of the evaluation; study method; findings, conclusions, and recommendations; and lessons learned about the design and implementation of this type of development activity. (See the Executive Summary Outline for more detailed instructions).

The body of the report should include discussion of (1) the purpose and study questions of the evaluation; (2) th economic and social context of the project; (3) team composition and study methods (one page maximum); (4) evidence/findings of the study concerning the evaluation questions; (5) conclusions drawn form the findings, stated in succinct language; ;and (6) recommendations based on the study findings and conclusions. The body of the report should not exceed 40 pages, with more detailed discussions of methodological or technical issues placed in appendices.

EXECUTIVE SUMMARY OUTLINE

The executive summary is a two--to three-page, single-spaced document containing a clear, concise summary of the most critical elements of the report. It should be a self-contained document that can stand alone from the report. The summary should be written in such a way that individuals unfamiliar with the project can understand the project's basic elements and how the findings from the evaluation related to it without having to refer to any other document.

1. Name of Mission initiating the evaluation, followed by title and date of full evaluation report.

2. Purpose of the activity or activities evaluated. What is constraints or opportunities does the activity address; what it trying to do about the constraints? Specify the problems, then specify the solution and its relationship, if any, to overall Mission strategy. State the purpose and goal from the Logical Framework, if applicable.

3. Purpose of the evaluation and methodology used. Why was the evaluation undertaken and if, a single project or program evaluation, at what stage--interim, final, ex post? Briefly describe the types and sources of evidence used to assess effectiveness and impact.

4. Findings and conclusions. Discuss major findings and conclusions based on the findings as related to the questions in the scope of work. Note any major assumptions about the activity that proved invalid, including policy-related factors. Cite progress since any previous evaluation.

5. Recommendations for this activity and its offspring (in the Mission country). Specify the pertinent conclusions for A.I.D. In design and management of the activity, including recommendations for approval/disapproval or for fundamental changes in any follow-on activities. Note any recommendations form a previous evaluations that are still valid but were not acted upon.

6. Lessons learned (for other activities and for A.I.D. generally). This is an opportunity to give advice about planning and implementation strategies: how t tackle a similar development problem, key design factors, and factors pertinent to management and to evaluation itself. There may be no clear lessons. Do not stretch the findings by presenting vague generalizations in an effort to suggest broadly applicable lessons. If items 4-5 above are succinctly covered, the reader can derive pertinent lessons. Coversely, do not hold back clear lessons even when they seem trite or navie. Address particularly the following issues:

-- Project design implications. Findings/conclusions about this bear on the design or management of other similar activities and their assumptions.

-- Broad action implications. Elements that suggest action beyond the activity evaluated and that need to be considered in designing similar activities in other contexts (e.g., policy requirements, procedural matters, factors in the country that were particularly constraining or supportive).

Appendices should include a copy of the evaluation scope of work, the most current Logical Framework as pertinent, a list of documents consulted, and individuals and agencies contacted. Additional appendixes may include a brief discussion of study methodology and technical topics if necessary.

APPENDIX E

[illegible]

[illegible]

[illegible]

TABLE 1

PUPIL AND STUDENT ENROLLMENTS

Institutions	1980	[illegible]	1985	[illegible]	1989	1990
Primary School	1235994	2044607	[illegible]	2251319	[illegible]	2281595
Secondary School	74321	316438	[illegible]	[illegible]	695882	708080
Technical Training	3642	7781	14410	11959	10715	9403
Teacher Training	2824	4429	10032	13294	[illegible]	16576
University	2240	3620	4742	6873	9209	9300

Source: Ministry of Higher Education. Ministry of Education and Culture.
Annual Review of Manpower.
Statistical Year Book.

While there were only 1,235,994, pupils in primary schools in 1980 the figure jumped to 2,281,595 in 1990, an increase of 84.6%. For secondary schools, the relatively small figure of 74,321 students in 1980 jumped to 708,080 in 1990 reflecting a phenomenal increase of 852.7%.

Similar increases in enrollments occurred in technical and teacher training institutions, and the University. The number of students in technical colleges rose from 3,642 in 1980 to 14,410 in 1985. The number of students in technical colleges in 1990 stands at 9,403 and represents 70% of the technical colleges student capacity. This drop in student enrollment is mainly due to a serious shortage of lecturers (see Table 8 in this Appendix). In teacher education while only 2,824 students were in training in 1980, the number increased to 16,576 in 1990 an increase of 487%. The student population at the University of Zimbabwe increased from 2,240 in 1980 to 9,300 in 1990, an increase of 315.2%

TABLE 2

NUMBER OF TEACHERS/LECTURER BY EDUCATIONAL LEVEL

Category	1980	1983	1985	1987	1989	1990
Primary School	3455	5250?	56691	57120	58150	58501
Secondary School	3730	6209	17315	21961	24856	27967
Technical College	-	278	333	-	428	-
Teacher Training	262	494	515	554	639	720
University	313	383	409	479*	567*	705

* Estimates

Sources: Ministries of Education.
Statistical Year Book.
Annual Review of Manpower.

The rapid increase in pupil and student enrollments meant corresponding increases in the number of teachers/lecturers, and the number of schools and training institutions. (See Tables 2 and 3)

TABLE 3

NUMBER OF SCHOOLS AND OTHER EDUCATIONAL FACILITIES

Institutions	1980	1983	1985	1987	1989
Primary School	3161	3960	4234	4439	4504
Secondary School	197	790	1215	1395	1502
Teacher Training	7	10	14	14	14
Vocational	-	-	2	2	3
Technical	2	3*	7	7	7
University	1	1	1	1	1

Source: Annual Review of Manpower, Ministry of Labour, Social Services, and Manpower Planning.
Ministries of Education.

* This number reflects fully operational technical colleges. However, 2 technical colleges were partly operational with a combined enrollment of 1043 students.

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Whilst there were only 40,455 teachers in the primary schools in 1980, the number increased to 58,501 in 1990. The number of secondary school teachers rose from a mere 3,730 in 1981 to 27,967 in 1990.

Teacher-pupil Ratios in both primary and secondary schools have changed since 1980. (see Table 4).

TABLE 4

TEACHER - PUPIL RATIOS IN PRIMARY AND SECONDARY SCHOOLS

Institution\Year	1980	1982	1985	1987	1989	1990
Primary	1:42.1	1:39.5	1:39.3	1:39.0	1:39.1	1:39.0
Secondary	1:19.9	1:27.2	1:27.8	1:28.3	1:26.0	1:25.3

Source: Calculated from data in Annual Report of the Secretary for Education, various years

Access to secondary education by Grade 7 pupils sharply rose from 35% at 1979/80 to 86% at 1980/81. However, the transition rate appears to be stabilizing at about 66%. (See Table 5).

TABLE 5

GRADE 7/FORM 1 TRANSITION RATES (%) BY SEX, 1979/80 - 1988/89

Year:	79/80	80/1	81/2	82/3	83/4	84/5	85/6	86/7	87/8	88/9
Transition Rate:										
Boys	26	89	79	76	85	84	81	73	69	-
Girls	28	82	60	72	79	79	76	67	62	-
Combined	27	86	70	74	82	82	78	70	66	66

Source: Calculated from Annual Report of the Secretary for Education, various years, Government Printers, Harare, and "Teachers' Colleges and Schools: Staffing and Enrolment Statistics", various years, Ministry of Education, mimeo.

Data in Table 5 show that relatively fewer girls are proceeding to secondary school after primary school education. The number

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of girls as a percentage of the total secondary school population has remained constant at about 43%. (See Table 6 below).

As can be seen from Table 6, the participation rate of girls at primary education stands at about 49%. It is also clear from Table 6 that private schools at both primary and secondary levels, continue to make a significant contribution to the education system.

Data in Table 6 also show that Zimbabwe has made impressive progress on reducing illiteracy. The illiteracy rate estimate (30%) for 1980 stood at 34%. The current illiteracy rate is estimated (60%) to stand at 30%. The EEC estimated literacy figures for 1983 and 1985 are significantly different from those by 60% (See Table 6 below).

TABLE 6

BASIC DATA

	1901	1985	1988
General	2	2	2
Area	391,000km	391,000km	391,000km
Total Population	7.7 million	8.2 million	9.2 million
Rural Population (As % of total)	80%	-	-
Population Growth Per Annum	3.6%	3.4%	3.3%(2.9% for 1990)
Modern Sector Employment	1.0 million	1,051,400	1,089,700
GNP Per Capita	K3462	-	-
Literacy Rate (EEC)	44%	74%	-
Literary Rate (GOZ)	62+	-	70+
Education Enrollments			
Enrollment in Primary Education (Grades 1-7)	1,715,200	2,216,878	2,212,103
As % of 6-12 Age Group	10%	90%	80%
Private as % of Total Primary	88%	97.3%	99.1%
Girls as % of Total Primary	48%	48.5%	49.2%
Primary as Percent of Total Primary and Secondary	92%	82.1%	77.3%
Enrollment in Secondary Education (Forms 1-6)	150,300	482,000	641,605
As % of 13-18 Age Group	15%	53%	63%
Private as % of Total Secondary	59%	66.9%	70.0%
Girls as % of Total Secondary	42%	40.4%	41.8%
Secondary as Percent of Total Primary and Secondary	8%	17.9%	22.5%
Enrollment in Higher Education	2,525	33,347	42,727
As % of 19-22 Age Group	0.5%	4.5%	5.2%
Girls as % of Total Higher	23%	-	-
Enrollment in Other Types of Education			
Teacher Training Colleges	3,600	9,504	15,201+
ZINTEC Teacher Training	2,100	528	-
Agricultural Schools	400	888	983**
Technical Colleges	6,600	14,410	18,864**
University	2,525	4,742	7,679**
Schools			
Total No of Schools	4,392	5,449	5,930
Primary as % of Total	84.2%	77.7%	75.0%
Private Primary as % of Total	78.1%	92.0%	92.3%
Secondary as % of Total	15.8%	22.3%	25.0%
Private secondary as % of Total	80.3%	85.8%	87.1%

\+ These figures are for 1992 and 1990, respectively

* Figure includes enrollments in ZINTEC Colleges

** Figures are estimates from the First Five-Year National Development Plan, Volume II, 1986-1990.

++ This figure is an estimate based on the 1985 figure

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Participation of female students in employment skills training remains low in those areas generally dominated by men. Table 7 provides enrollement data supporting this observation.

TABLE 7

ENROLLMENT IN TECHNICAL COLLEGES BY DISCIPLINE AND SEX (1989-90)

Discipline\Year	1989*			1990		
	Male	Female	Total	Total	Female	Total
Adult Education	72	76	148	-	-	-
Automotive Engineering	473	13	485	408	12	420
Business Studies	1,721	759	2,480	2,223	831	3,054
Computer Science	101	55	156	129	66	195
Constructing/Civil Engineering	446	19	465	456	31	487
Electrical Engineering	530	62	592	584	101	685
General Development Short Courses	1,093	2,112	3,205	459	775	1,234
Hotel Keeping and Catering	64	28	92	79	34	113
Instructor Training /FETC	70	20	90	41	12	53
Library and Information	76	24	100	59	40	99
Management Development	0	0	0	0	0	0
Mass Communication	59	44	103	39	42	81
Mechanical Engineering	843	9	852	719	7	726
Mining Engineering	31	0	31	33	0	33
Printing and Graphic Arts	155	38	193	154	34	188
Science Technology	167	35	202	184	44	228
Secretarial Studies	244	1,557	1,801	537	1,111	1,648
Textile Technology	7	5	12	8	9	17
Wood Technology	0	0	0	0	0	0
Total	6,151	4,856	11,007	6,112	3,14[illegible]	9,261

*Figures include enrollments in vocational training centres

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The data in Table 7 show that very few female students enter for Automotive Engineering (2.7% of the total enrolment in the subject in 1989 and 1.9% in 1990), Construction/Civil Engineering (4.1% in 1989 and 6.4% in 1990), Electrical Engineering (10.2% in 1989 and 14.7% in 1990), Mechanical Engineering (1.3% in 1989 and 1.0% in 1990), Mining Engineering (0.0% in both 1989 and 1990), Printing and Graphic Arts (19.7% in 1989 and 16.1% in 1990), and Science Technology (17.3% in 1989 and 19.3% in 1990). It is also observed that while curricular provisions are made for Management Development and Wood Technology, no students were enrolled in these courses in 1989 and 1990. It is also evident from enrollment figures in Table 1 that technical colleges and vocational training centres are operating below their full capacity. Data in Table 8 below support this observation.

Data in Table 8 show that five of the seven technical colleges are operating below their full student capacities. Except for Masvingo Technical College, colleges are experiencing a serious shortage of lecturers. Of the 657 established posts of lecturers in the seven colleges only 65% were filled. This manpower shortage is greatly affecting the total number of students enrolled, the range of fields of study offered, and the output levels of graduates in the different disciplines.

TABLE 8

TECHNICAL COLLEGES AND VOCATIONAL CENTRES LECTURERS AND STUDENT CAPACITIES (1989)

College	LECTURER S			STUDENTS		
	Established Posts	Post Filled	% Filled	Student Capacity	No. Enrolled	% Filled
Bulawayo	250	146	58.4	1,846	2,499	135.4
Gweru	35	28	80.0	533	579	108.4
Kushinga Phikelela	33	13	39.4	365	238	65.2
Kwekwe	45	29	64.4	602	405	67.3
Harare	237	173	73.0	7,800	5,848	75.0
Masvingo	11	11	100.0	245	114	46.5
Mutare	46	28	60.9	2,030	1,033	50.9
Total Technical	657	428	65.1	13,421	10,715	79.9
Belvedere V.T.C(H.I.T)	31	14	45.2	192	72	37.5
Msasa V.T.C.	14	6	42.9	240	141	58.8
Westgate V.T.C.	18	15	83.3	72	67	93.0
Total Voc. Centres	63	35	55.6	504	273	54.2

The enrollment expansions highlighted above meant dramatic increases in public, recurrent expenditure on Education. (See Table 9).

TABLE 9

GROWTH OF RECURRENT EDUCATION EXPENDITURE BY MINISTRY

Ministry	Year	Recurrent Exp. Z$Million	% Inc.	GOZ Budget Z$Million	Recurrent as % of GOZ Bud	G.N.P. Z$Million	Ed. Recurrent Exp. as % of G.N.P.
Education and	87-88	708.851	0	5,390.240	13.15	8495(1987)	8.34
Culture	88-89	846.744	19.45	6,052.163	13.99	1,0127(1988)	8.36
	89-90	1,042.543	23.12	7,168.190	14.54	11,889(1989)	8.77
	90-91	1,329.074	27.48	9,017.060	14.74	14,317(1990)	9.28
Higher Education	87-88	140.841	0	5,390.240	2.61	8,495(1987)	1,66
	88-89	150.006	6.51	6,052.163	2.48	10,127(1988)	1.48
	89-90	172.895	15.26	7,168.190	2.41	11,889(1989)	1.45
	90-91	203.141	17.49	9,017.060	2.25	14,317(1990)	1.42

Source: Annual Estimates of Expenditure, Ministry of Education and Culture, Ministry of Higher Education. Ministry of Finance.

In 1987, the recurrent expenditure for the Ministry of Education and Culture accounted for about 13% of the total Government Budget or 8.3% of the Gross National Product while that for the ministry of Higher Education accounted for about 2.6% of the total Government Budget or 1.7% of the GNP. The combined recurrent expenditure on education accounted for about 16% of the total Government Budget or 10% of the Gross National Product. In 1989, the combined recurrent expediture on education accounted for about 17% of the total Government Budget or 10% of the GNP.

Overall, recurrent education expenditures for the two Ministries continued to rise from 1987 through 1990. While stringent measures will be taken by the Government of Zimbabwe to control recurrent expenditures, the need for more qualified teachers, improved conditions of service for teachers, and additional inputs of instructional materials will force the recurrent education expenditure to grow. Table 10 presents education budget projections for the two ministries of education.

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TABLE 10

EDUCATION BUDGET PROJECTIONS BY MINISTRY ($ MILLIONS)

ESTIMATE	Ministry and Fiscal Year									
	Education and Culture					Higher Education				
	1991/92	1992/3	1993/94	1994/95	1995/96	1991/92	1992/3	1993/94	1994/95	1995/96
Upper Bound (23%$ & C) (13% HE	1635	2011	2474	3043	3743	330	360	294	332	375
Lower Bound (1% Decrease per Year) in Growth Rate	1621	1961	2353	2800	3304	328	253	278	303	327
Lower Bound (2% Decrease per Year) in Growth Rate	1608	1914	2239	2575	2910	325	246	263	276	284

Sources: Ministry of Education and Culture, and Ministry of Higher Education

Data in Table 11 show average unit costs by level of education.

TABLE 11

UNIT COST BY LEVEL OF EDUCATION (Z$)

Level/Year	1988		1989		1990	
	Expenditure	Unit Cost	Expenditure	Unit Cost	Expenditure	Unit Cost
Primary	503,525,710	227	612,298,590	269	771,251,250	338
Secondary	274,301,530	420	330,120,400	474	412,332,720	582
Teacher Training	48,310,629	3,067	52,169,200	3,214	58,881,567	3,552
Technical Training	39,013,366	3,262	43,072,695	4,020	43,996,928	4,679
University	45,996,000	5,961	58,300,000	6,277	77,063,500	9,286

Sources: Ministry of Education and Culture. Ministry of Higher Education. University of Zimbabwe.

Payments by parents for various services provided by secondary schools are fairly comparable in the majority of school types. (See Table 12).

The analysis in Table 12 of annual fees charged at 30 secondary schools indicates that parents in rural districts pay comparable tuition fees to those charged in Mission schools, and Government

Group A and B schools. As can be seen from Table 12, total fees in rural district schools are of the same range as that of non-boarding Government Group A and B schools.

[illegible]

[illegible] AT SELECTED PRIMARY SCHOOLS - 1989

NAME OF SCHOOL	[illegible]	[illegible]						[illegible] BOARDING FEES BY FORM						[illegible] FEES BY FORM					
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
John Tallach	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			-	-	-	-	-	-		-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-		-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	15	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-		-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	-	[illegible]	[illegible]	[illegible]	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	150
[illegible]	Rural District [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-
Dahlangana	Rural District [illegible]	[illegible]	[illegible]	[illegible]	[illegible]	-	-	-	-	-	-	-	-	[illegible]	5	[illegible]	5	-	-
St. Charles	Rural District [illegible]	[illegible]	150	[illegible]	150	-	-	-	-	-	-	-	-	[illegible]	30	30	30	-	-
Simoo	Rural District [illegible]	100	100	100	100	-	-	-	-	-	-	-	-	15	15	15	15	-	-
Rusununguko	Rural District [illegible]	90	90	90	90	-	-	-	-	-	-	-	-	30	30	[illegible]	30	-	-
[illegible]	Rural District C.	125	125	130	[illegible]	-	-	-	-	-	-	-	-	[illegible]	[illegible]	[illegible]	[illegible]	-	-
[illegible]	Rural District C.	100	100	[illegible]	100	-	-	-	-	-	-	-	-	[illegible]	[illegible]	10	[illegible]	-	-

* The category labelled other fees include items such as general purpose fund, sports fee, [illegible] fee, admission fee, levy fee, and Parents-Teachers Association fee.

The [illegible] fees for [illegible] are probably inaccurate since all other Government schools reported a [illegible] figure of $135

Source: 1989 [illegible]

Best Available Document

[illegible] 87

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
Kitwe	Division	8	1			1	1	717	717	717	717	717	717
Nyasoli	Division	15	15	15	15	15	15	150	150	150	150	150	150
Ndola	Division	17	17	17	17	17	17	170	170	170	170	170	170
Luanshya	Division	11	11	11	11	--	--	91	110	110	110	--	--
Mufulira	Division	9	9	9	9	--	--	81	90	90	90	--	--
Presbyterian	Division	7	7	7	7	--	--	70	70	70	70	--	--
Chinsali High	Local					90	90	720	720	720	720	720	720
Twinsend High	Local	12	12	12	12	120	120	960	960	960	960	960	960
Chaplin High	Local	8	8	8	8	80	80	640	640	640	640	640	640
Watfield High	Local	13	13	13	13	130	130	910	910	910	910	910	910
Mpika	Rural District	2	2	2	2	-	-	20	160	160	160	-	-
Luwombwa	Rural District	5	5	5	5	-	-	100	100	100	100	-	-
Kawaziana High	Rural District	3	3	3	3	-	-	57	57	57	57	-	-
Chinsali No.2	Rural District	4	4	4	4	-	-	147	147	147	147	-	-
Nsenkobo High	Rural District	4	4	4	4	-	-	171	171	171	171	-	-
Isoka	Rural District	11	11	11	11	-	-	575	575	575	575	-	-
Nakonde	Rural District	4	4	4	4	-	-	136	136	136	136	-	-
Petauke High	Rural District	14	14	14	14	-	-	559	559	559	559	-	-
Nyimba High	Rural District	8	8	8	8	8	8	686	686	686	686	686	686
Christian Brothers	High Fee Trust	10	10	10	10	10	10	1950	1950	1950	1950	1950	1950
Kitwe Christian	High Fee Trust	7	7	7	7	7	7	1260	1260	1260	1260	1260	1260
Chinsali Senior	High Fee Trust	17	17	17	17	17	17	1700	1700	1700	1700	1700	1700
Lumangwe College	High Fee Trust	1550	47	47	47	47	47	6970	4470	4470	4470	4470	4470
Kasaba	Rural District C.	7	7	7	7	--	--	819	819	819	819	-	-
Mahlangeni	Rural District C.	9	9	9	9	-	-	110	110	110	110	-	-
St. Charles	Rural District C.	9	9	9	9	-	-	189	189	189	189	-	-
Bimbo	Rural District C.	8	8	8	8	-	-	183	183	183	183	-	-
Kasanangwa	Rural District C.	7	7	7	7	-	-	133	133	133	133	-	-
Siabuwa	Rural District C.	-	-	-	-	-	-	135	135	135	135	--	
Mtshabi	Rural District C.	8	8	8	8	-	-	112	112	112	112	--	

* The category labelled other fees include items such as general purpose fund, sports fee, industrial fee, admission fee, levy fee, and Parents-Teachers Association fee.

+ The reported tuition fees for Kawaziana and Chinsali No.2 are probably inaccurate since all other Government schools recorded a similar figure of K120

Source: 1989 Part Two Blue Forms

APPENDIX F

APPENDIX F

BRIEF PROJECT DESCRIPTIONS ON EDUCATIONAL PROGRAM IN ZIMBABWE: BASIC EDUCATION AND SKILLS TRAINING SECTOR ASSISTANCE PROGRAM (BEST)-613-K-606

Project Summaries (Ministry of Primary and Secondary Education)

1. RESEARCH AND EVALUATION

2. COMPUTERIZATION OF REGIONS

3. STAFF DEVELOPMENT

4. TRAINING OF EXAMINATION MARKERS

5. ADMINISTRATION/PROCESSING EXAMINATIONS/AUTOMATION

6. UPGRADING FORMER PRIMARY TEACHERS

7. SECONDARY SCHOOL TECHNICAL KITS

8. PRIMARY AND SECONDARY SCHOOL DISTANCE EDUCATION MATERIALS

9. EXAMINATION BRANCH

10. THE NATIONAL EDUCATION SERVICES CENTRE

11. UNIVERSITY OF ZIMBABWE FACULTY OF EDUCATION STAFF DEVELOPMENT PROGRAM

12. BOOKS THROUGH THE BROTHER'S BROTHER FOUNDATION

1. RESEARCH AND EVALUATION - Allocation: Z$ 20,000
Expended: Z$ -0-
Balance: Z$ 20,000

Objectives: Improving the analytical, planning, evaluation and implementation skills of officers of the Ministry of Primary and Secondary Education.

Description: Project was aimed to increase the institutional capacity of the Ministry in project design, planning, analysis, implementation and evaluation. This project, originally funded at Z$ 100,000, has never been drawn down.

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2. COMPUTERIZATION OF REGIONS: -

Allocation:	Z$1,768,000
Expended:	Z$ 682,446
Balance:	Z$1,085,554
Allocation:	US$1,655,000
Expended:	US$ 951,001
Balance:	US$ 703,998

Objectives: Decentralize data collection and improve efficiency and effectiveness of educational planning and administrative services of the Ministry of Primary and Secondary Education. Streamline and simplify all forms and procedures in the various provincial educational offices through use of computers.

Description: This project aims to improve data processing of the Ministry of Primary and Secondary Education and enhance its planning and administrative functions. The Ministry's data capture and analysis and administrative functions will be made more efficient, reducing time spent on a job, costs and paperwork. Also, the Ministry's Planning Unit's capacity will be significantly bolstered due to improved access to information resulting from this project. This project will also strengthen the Ministry's computer staff through training of key personnel. All the nine Ministry's Regional Offices have now been computerized and software development and staff training continues according to plan. Funds are all committed.

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3. STAFF DEVELOPMENT:

Allocation:	Z$	364,000
Expendited:	Z$	34,234
Balance:	Z$	329,766
Allocation:	US$	350,000
Expendited:	US$	286,989
Balance:	US$	63,010

Objectives: Upgrade Ministry of Primary and Secondary Staff and those of teacher training colleges through long-term, short-term training and also through in-country training. To improve and widen knowledge of Ministry officials about new developments in various aspects of education through study tours.

Description: Four Ministry officials have undergone degree training in the United States under this program, and over 60 have gone on educational study tours to various parts of the world. The computerization project was the result of one such study tour made by officials of the then Ministry of Education to the United States.

4. TRAINING OF EXAMINATION MARKERS:

Allocation:	Z$	1,021,134
Expended:	Z$	811,607
Balance:	Z$	209,527
Allocation:	US$	200,000
Expended:	US$	3,009
Balance:	US$	196,991

Objectives: To localize 'O' and 'A' level examinations and reduce dependency on the Cambridge Local Examination Syndicate. To reduce foreign exchange costs by marking administering and certifying 'O' and 'A' levels in Zimbabwe. To encourage curriculum change by this process and make it more relevant to the local environment. The training of Zimbabwean examination markers and setters started in April 1984.

Description: This project involves more than just training examination setters and markers. Administrators (each responsible for a cluster of subjects), Test Development and Research Officers, non-professional administrators and data processing personnel, have also been trained. By April 1989, about 3,100 markers had been trained and they will be capable of marking some 200,000 scripts per subject by 1990.

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5. ADMINISTRATION/PROCESSING EXAMINATIONS/AUTOMATION

Allocation:	Z$	100,000
Expended:	Z$	46,597
Balance:	Z$	53,403
Allocation:	US$	408,000
Expended:	US$	418,502
Balance:	- US$	7,488

Objectives: To strengthen the Ministry's capacity to process the increased load of Grade 7, Zimbabwe Junior Certificate (ZJC), 'O' and 'A' level examinations. To provide the necessary computer hardware, software, training and technical assistance to the Examination Branch and the Treasury Computer Bureau in processing examinations.

Description: Following the attainment of Independence and the massive expansion of the education system, the number of pupils sitting Grade 7, ZJC, 'O' and'A' levels, increased dramatically. For example in 1984, 1,030,000 Grade 7 scripts were marked, but by 1989 the number is estimated to be 3,570,000. For ZJC, 370,000 scripts were marked in 1984, and by 1989 the number of scripts that will need to be marked will be 570,000. Localization of the 'O' level examinations starting in 1985 has meant another quantum increase in the work for the Examination Branch. Also about 10,000 headmasters underwent training in the administration of Grade 7 examinations.

On the foreign exchange side, computers, technical assistance and examination answer sheets have been provided.

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6. UPGRADING FORMER PRIMARY TEACHERS:

Allocation:	Z$ 100.000
Expended:	Z$ 37,563
Balance:	Z$ 62,437

Objectives: To impart the necessary content for secondary teaching to the former primary trained teachers, and expose them to secondary teaching methods and techniques. Increase in this process the number of qualified secondary school teachers and also improve the quality of secondary school teachers.

Decision: This ongoing project is designed to address the shortage of qualified secondary school teachers. The rapid expansion of the school system and the Government's decision to provide free primary education necessitated expansion of the secondary school level, and the creation of upper tops (two years after Grade 7). This exerted enormous pressure on existing resources, especially teacher education. This project will support courses for primary trained teachers, now operating in secondary schools (upper tops). To date, over three hundred primary teachers have been trained to become secondary school teachers.

7. SECONDARY SCHOOL TECHNICAL KITS:

Allocation:	Z$ 5,600,000
Expended:	Z$ 3,137,827
Balance:	Z$ 2,462,173

Objectives: To introduce relevant and cost-effective technical education kits to rural and urban schools. Improve the quality of secondary technical education in secondary schools and support teachers of secondary technical subjects.

Description: Following attainment of Independence, the Government of Zimbabwe decided to support and promote technical and science subjects. Inputs were therefore required for science/technical teacher training curriculum and provision for basic technical equipment. In order to promote technical and science education, provision of basic tools and equipment was required in order for successful learning to take place. In this regard, the Ministry decided to change from conventional fully equipped laboratories and workshops to science and technical subjects kits made up of largely local equipment and a smaller foreign content. To date, over 1,000 kits have been provided to schools in agriculture, building, food and nutrition, commercial subjects, fashion and fabric, metalwork, technical drawing, woodwork and arts and crafts. This project is very sound but problems remain especially with its coordination of this project.

8. PRIMARY AND SECONDARY SCHOOL DISTANCE EDUCATION MATERIALS:

Allocation:	Z$ 3,200,000
Expended:	Z$ 2,105,772
Balance:	Z$ 1,094,228

Objectives: To provide low cost educational materials to pupils in as many primary and secondary schools as possible, with emphasis on rural studies.

Description: This project addresses the critical shortage of books in many Zimbabwean schools. Since 1980 there has been tremendous expansion of the educational system. This project provides inexpensive instructional distance education materials to many people who otherwise would not have access to printed materials. To date, distance materials for over twenty subjects have been printed and dispatched to schools. Of significance is the fact that the printed materials also offer teachers an opportunity to try out new teaching methods. More important is the fact that the distance education materials represent first steps towards curriculum reform aimed at making Zimbabwe's schools more relevant to the country's development needs.

9. EXAMINATION BRANCH:

Allocation:	Z$ 1,600,000
Expended:	Z$ 1,356,116
Balance:	Z$ 233,884

Objectives: To provide an independent centre for the processing and administering of all examinations.

Description: This construction project has been completed. It is the first phase of the much larger National Education Services Centre. It was necessary to start constructing the Examinations Branch because the Ministry's staff dealing with Examinations were housed in cramped conditions on the 2nd floor of Coghlan House. The follow-up phase which constitutes the National Education Services Centre is now under construction.

A final accounting on A.I.D. financed construction is required from the Ministry of Construction and National Housing through the Ministry, and that of Finance Economic Planning and Development.

10. THE NATIONAL EDUCATION SERVICES CENTRE:

Allocation:	Z$	7,030,000
Expended:	Z$	584,656
Balance:	Z$	6,445,344

Objectives: To support and sustain rapid school expansion that has characterized the Zimbabwean educational system since Independence. To effectively administer all the major educational functions of the Ministry of Primary and Secondary Education (these include teacher training, inservice training, curriculum development, non-formal education, examinations, psychological services and library services).

Description: This project represents the second phase following completion of the Examinations Branch. The project will benefit six important divisions of the Ministry. These divisions have been operating in poor and cramped facilities. More important, it will bring all the divisions together, thereby enabling them to strengthen each other. Due to the proximity of this project to the Audio Visual Services and the In-Service Teacher Centre, it will create a single multi-functional complex.

The six divisions to be housed by this project are the most crucial to Zimbabwe's educational system and its capacity to further develop and sustain its present services. These include, curriculum development, Teacher Education Non-Formal Education, Special Education and Examinations. The Ministry of Primary and Secondary Education has requested an additional Z$800,000 for local equipment and U.S$ 1 million for assorted equipment which will be used by the Curriculum Development Unit and the other divisions. USAID and the BEST Working Group have agreed to these allocations in principle, and the Ministry has come up with specifications of the equipment required at this centre. This equipment varies from woodwork equipment, metalwork equipment, music equipment to Home Economics.

11. UNIVERSITY OF ZIMBABWE FACULTY OF EDUCATION STAFF DEVELOPMENT PROGRAM:

Allocation:	Z$	500,000
Expended:	Z$	-0-
Balance:	Z$	500,000
Allocation:	US$	750,000
Expended:	US$	93,945
Balance:	US$	656,504

Objectives: To enable the Ministry of Primary and Secondary Education and the Ministry of Higher Education's officers to conduct research in areas related to their professional responsibilities, thereby assisting them in completing higher degrees at the University while increasing their effectiveness in post. Strengthen the University's capacity to conduct applied human research by providing additional support staff and computer services to the Ministries officers.

Description: This program was designed to train officers of both Ministries to conduct research on topics related to their professional responsibilites without leaving the country for extended periods of time. To date 29 officers from both Ministries have registered to undertake training at the Faculty of Education on a part-time basis. Some will undertake Master of Philosophy and Doctor of Philosophy degrees, while others will go for the Masters' in Education and Diploma programs.

Computer equipment in support of this program has been purchased and installed at the recently opened Human Resources Research Centre and instructors have been recruited using USAID funds to supervise the officers and teach other courses in the Department of Education. The local currency allocated to this project will meet the cost of a full time administrative and support staff, together with other local related costs.

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12. BOOKS THROUGH THE BROTHER'S BROTHER FOUNDATION

Allocation:	US$ 700,000
Expended:	US$ 406,271
Balance:	US$ 293,729

Objectives: To provide books, reading and other learning materials to public and private schools in communal areas whose clientele might otherwise not be in a position to buy books themselves. Provide books to the libraries of Technical Colleges and other tertiary institutions.

Description: This project started in 1986 when A.I.D. granted the Brother's Brother Foundation U.S.$700,000 for the shipping of books, learning materials and other instructional materials from the United States to Zimbabwe. Under this project, the Brother's Brother Foundation approaches U.S. publishers and solicits donations based on requests from the two Zimbabwe Government Ministries. The Brother's Brother Foundation in turn ships the books to Zimbabwe. The Harare Central Rotary Club has been contracted by the Brother's Brother Foundation to receive the books, stamp them and notify the Ministries as to when the books and learning materials arrive.

Of significance is the fact that during the life of the project (1986-1989) Zimbabwe will receive about two million books and learning materials, whose estimated value is about U.S.$20 million for only U.S$700,000. However, there is an urgent need for a thorough evaluation of this project. The evaluation will try to see if these books are appropriate, how effective this project is, how it can be improved, and whether or not a similar project can be funded in the future, because it has the potential of being of great value.

In September, the terms of reference for the evaluation were agreed upon and funds for the evaluation earmarked. The Ministry of Finance Economic Planning and Development has to issue a request for proposals for the evaluation. Following this, the BEST Working group Sub-Committee on evaluation will choose a Contractor for this work.

BRIEF PROJECT DESCRIPTIONS ON THE EDUCATIONAL PROGRAM IN ZIMBABWE: BASIC EDUCATION AND SKILLS TRAINING SECTOR ASSISTANCE PROGRAM (BEST)-613-K-606.

Project Summaries (Ministry of Higher Education)

1. BOOKS THROUGH THE BROTHER'S BROTHER FOUNDATION

2. BELVEDERE TEACHERS COLLEGE

3. BELVEDERE NATIONAL VOCATIONAL TRAINING DEVELOPMENT CENTRE

4. MUTARE TECHNICAL COLLEGE

5. MASVINGO TECHNICAL COLLEGE

6. BULAWAYO TECHNICAL COLLEGE - COMPUTER SUPPORT

7. STAFF DEVELOPMENT

8. UNIVERSITY OF ZIMBABWE FACULTY OF EDUCATION STAFF DEVELOPMENT PROGRAM

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1. BOOKS THROUGH THE BROTHER'S BROTHER FOUNDATION
(for both Ministry of Primary and Secondary Education and Ministry of Higher Education).

Allocation:	US$ 700,000
Expended:	US$ 406,271
Balance:	US$ 293,729

Objectives: To provide books, reading and other learning materials to public and private schools in communal areas whose clientele might otherwise not be in a position to buy books themselves. Provide books to the libraries of Technical Colleges and other tertiary institutions.

Description: This project started in 1986 when A.I.D. granted the Brother's Brother Foundation U.S.$700,000 for the shipping of books, learning materials and other instructional materials from the United States to Zimbabwe. Under this project, the Brother's Brother Foundation approaches U.S. publishers and solicits donations based on requests from the two Zimbabwe Government Ministries. The Brother's Brother Foundation in turn ships the books to Zimbabwe. The Harare Central Rotary Club has been contracted by the Brother's Brother Foundation to receive the books, stamp them and notify the Ministries as to when the books and learning materials arrive.

Of significance is the fact that during the life of the project (1986-1989) Zimbabwe will receive about two million books and learning materials, whose estimated value is about U.S.$20 million for only U.S$700,000. However, there is an urgent need for a thorough evaluation of this project. The evaluation will try to see if these books are appropriate, how effective this project is, how it can be improved, and whether or not a similar project can be funded in the future, because it has the potential of being of great value. (see last para. on pp 12).

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2. BELVEDERE TEACHERS COLLEGE:

Allocation:	Z$	16,835,000
Expended:	Z$	16,385,000
Balance:	Z$	450,000
Allocation:	US$	704,500
Expended:	US$	703,502
Balance:	US$	998

Objectives: This project aims to meet Zimbabwe's need for trained secondary school teachers in technical subjects, sciences, mathematics and language. It aims to ease the tremendous shortage of qualified teachers in these subjects at the secondary school level. It trains secondary school teachers who will be able to teach both practical and academic subjects.

Description: The rapid expansion at the secondary school level led to a severe shortage of trained teachers and necessitated the expansion of teacher training facilities. At Independence, Zimbabwe had only two teacher training colleges training secondary school teachers. This lack of adequate teacher training facilities constrained the Government from realizing its staffing goal, hence the decision to construct the Belvedere Teachers College.

Construction started in 1982 and proceeded rapidly. The College was officially opened by the President on March 30, 1985, and has a capacity of 2,400 students. USAID has provided equipment worth over U.S.$700,000 for use in training programs at the College. Phase 7 of construction, is already underway, and this includes staff houses and a swimming pool. This should be the last phase of construction at this project.

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3. BELVEDERE NATIONAL VOCATIONAL TRAINING DEVELOPMENT CENTRE:

Allocation:	Z$ 8,000,000
Expended:	Z$ 6,622,293
Balance:	Z$ 1,377,707

Objectives: To assist the Government of Zimbabwe in establishing a National Vocational and Training Development Centre which will provide overall administrative and oversight of the national technical and vocational training system. To establish this as the centre for curriculum development and other innovations and approaches, to improve the instructional programs in vocational and technical training for all the technical colleges. To establish the NVTDC as the Centre for the provision of training, testing, and assessment procedures for skilled manpower.

Description: This project was conceived to coordinate all vocational and technical training activities in the country, and develop occupational specifications, curricula, and assessment procedures, a new trade testing system and new certification standards adjusted to local conditions and requirements.

This was a joint project between USAID and the German Technical Cooperation Agency (GTZ), with USAID providing funds for construction and technical assistance in curriculum development, skilled worker training, trade testing and examinations. The Germans have provided equipment for the workshops and will provide instructional staff and initiate a staff development program. Although the NVTDC has now been completed and equipment installed, instructional programs, which were long since supposed to start have not yet begun. The Centre lacks adequate staff, both local and expatriate, and needs structural renovations costing up to Z$1 million. A major problem has been failure by the officials administering the technical vocational system to develop their staff development plan, and make decisions on equipment requirements and overall management of the technical vocational system.

A final accounting on A.I.D. financed construction is required from the Ministry of Construction and National Housing and the Ministry of Finance Economic Planning and Development.

4. MUTARE TECHNICAL COLLEGE:

Allocation:	Z$ 12,550,000
Expended:	Z$ 12,067,849
Balance:	Z$ 482,151

Objectives: Project aims to provide relevant technical and vocational facility that will serve Mutare and its surrounding environment. It fulfills Government of Zimbabwe and program's stated objective to decentralize technical and vocational training by establishing new technical colleges outside the main centres.

Description: This was a joint project between USAID and the Yugoslavians, intended to offer instruction in four technical courses; electrical, automotive, mechnical engineering and wood technology, in addition to the current secretarial and business studies. USAID has provided funds for construction of the College, while the Yugoslavians have provided some equipment and instructional staff. As a satellite College of the centralized vocational training system, Mutare faces similar problems as other institutions; i.e. inadequate staffing and equipment. This situation seems to be as a result of poor and inadequate long range planning by managers of the Technical Vocational Training System overall. The College is now complete but faces major problems in the areas indicated above.

A final accounting on A.I.D. financed construction is required from the Ministry of Construction and National Housing through the Ministry.

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5. MASVINGO TECHNICAL COLLEGE:

Allocation:	Z$ 8,000,000
Expended:	Z$ 3,396,483
Balance:	Z$ 4,603,517

Objectives: To provide a relevant technical and vocational training facility that will serve Masvingo and the Southern part of Zimbabwe. To accelerate GOZ and program goal to decentralize technical and vocational training by establishing a new centre outside the two major centres.

Description: Masvingo Technical College will offer instruction in the three technical courses, electrical, mechanical and automotive engineering and a fourth yet to be identified engineering course, as well as courses in business and secretarial studies. Construction is well underway, however, the Ministry has not come up with plans for equipping and staffing this College. Also construction been at a standstill since October 1987 but has resumed again. USAID has already indicated that it does not have any funds for equipping or staffing this institution. Masvingo Technical College faces similar problems as other Technical Colleges. As a satelite College of the Centralized vocational technical system, it suffers from inadequate staff and equipment.

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6. BULAWAYO TECHNICAL COLLEGE (COMPUTER SUPPORT)

Allocation:	US$ 350,000
Expended:	US$ 324,000
Balance:	US$ 25,279

Objectives: To provide computer support for instructional and administrative requirements, through a data base management system, utility program and terminals to be operated independently from five administrative offices. To provide software that will support administrative needs as well as academic disciplines of electrical; mechanical; civil; mining and building engineering; commerce; art and science; hotel and catering. To provide training for the administrators and faculty in the use of the computer system.

Description: This project is aimed at training students and the local community in computer and computer related fields. It aims to improve the academic and administrative activities at the college using computers. The project, besides training Zimbabweans in the use of computers in both industrial and commercial subjects, will also enable administrators to efficiently carry out their jobs, and make better informed and faster decisions. USAID provided the full funding of the computer equipment and software and also provided the project specialist to act as project leader for two years. The equipment and software were handed over to the College by the USAID Director, Mrs. Allison Herrick in July 1987. This project is progressing well.

7. STAFF DEVELOPMENT: Ministry of Higher Education

Allocation:	US$1,200,050
Expended:	US$ 690,990
Balance:	US$ 509,060

Objectives: To help the Division of Vocational and Technical Training in the Ministry of Higher Education to train Zimbabweans who will return to Zimbabwe and take instructional positions within the vocational and technical system. To assist the division to develop and maintain a solid cadre of well qualified staff for the existing and expanding vocational/technical training system.

Description: This project attempts in a own small way to address a much larger and serious staffing situation in the Institutional and Industrial training departments and the Directorates of the Division of Vocational and Technical Training in the Ministry of Higher Education. Evidence of the seriousness of the staffing profile within the vocational/technical training system is borne by the fact that of the 772 authorized positions in the technical colleges, the Management Training Bureaus, and the National Vocational Training and Development Centre, only 420 or 54% are filled. Moreover, a substantial number of these instructors are expatriates or on local contracts of limited duration.

The short term solution has been to fill vacancies with expatriates, locally available technical persons and with part-time personnel available within each community. Such stop-gap measures can and have only alleviated the immediate problem. The long-term solution requires the development of a training strategy/plan to train local expertise that can take over these positions as well as newly created posts at new facilities such as Masvingo, Mutare, Gweru and the NVTDC. For sometime now USAID has been requesting the then Ministry of Labour to come up with a Comprehensive Staff Development plan, but to no avail. Finally, last year they approved 22 candidates for staff development in the United States, and USAID concurred to their training. As it turned out, only 12 left for training before the deadline. Including the US$524,000 earmarked for curriculum development, over US$1,000,000 is thus available for short-term staff development and/or extension of contracts for American instructors in the Vocational/Technical System.

In PIL 38, US$825,000, and US$248,000 was allocated from funds mentioned above for the extension of contract lectures teaching in the technical college system and at the University of Zimbabwe and to the extension of the Academy for Educational Development's Core Contract for managing the Contract lecturers from March 31, 1989 (original contract terminal date) to December, 1989.

Finally, retaining staff, once recruited and trained is a serious problem since experienced and technically qualified persons tend to gravitate to the private sector for higher salaries and fringe benefits which do not obtain in the present Government Service. The issue of a new and better compensation plan is an absolute necessity if the instructional program is to avoid collapse.

8. UNIVERSITY OF ZIMBABWE FACULTY OF EDUCATION STAFF DEVELOPMENT PROGRAM.

Allocation:	Z$	500,000
Expended:	Z$	-0-
Balance:	Z$	500,000
Allocation:	US$	750,000
Expended:	US$	93,945
Balance:	US$	656,504

Objectives: To enable the Ministry's officers to conduct research in areas related to their professional responsibilities, thereby assisting them in completing higher degrees at the University while increasing their effectiveness in post. Strengthen the University's capacity to conduct applied human research by providing additional support staff and computer services to the Ministry's officers.

Description: This program was designed to train officers of both Education Ministries to conduct research on topics related to their professional responsibilites without leaving the country for extended periods of time. To date, of a total of 29 officers registered for the program, only 5 are from the Ministry of Higher Education. Some will undertake Master of Philosophy and Doctor of Philosophy degrees, while others will go for the Masters' in Education and Diploma programs. The program could accommodate a least 15 additional officers.

Computer equipment in support of this program has been purchased and installed at the recently opened Human Resources Research Centre and instructors have been recruited using USAID funds to supervise the officers and teach other courses in the Department of Education. The local currency allocated to this project will meet the cost of a full time administrative and support staff, together with other local related costs.

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APPENDIX G

APPENDIX G

CURRICULUM

Curriculum reconstruction was one of the major foci of educational change in Zimbabwe since independence. BEST contributed directly to this initiative. The Secondary School Technical Kits (SSTK) matched the government's policy goal of introducing technical education into all secondary schools with the twin goals of reducing the academic bias of the inherited colonial curriculum and increasing the employability of graduating students in the labor market. The Distance Learning Materials (DLM) also met the policy goal of equipping primary and secondary schools in rural areas with basic materials for teaching and learning. Did BEST make a difference in the curriculum area?

Curriculum innovations under BEST shared some common problems with those initiated under different donor agencies (such as SIDA's ZIMSCI, or ZImbabwe Science program). The common problem areas summarized below were more evident in the SSTK innovation:

1. Curriculum co-ordination. At the very least successful implementation of the school curriculum involves bringing together at the school site three indispensable elements i.e., a qualified teacher, a full complement of essential learning materials (e.g., a complete technical kit) and appropriate classroom space for teaching the subject (e.g. specialist classrooms for metalwork). Across schools targeted with BEST-funded materials, one or more of these critical elements were not in place, a testimony to poor co-ordination between the Ministry office placing qualified teachers, the CDU which os responsible for equipping the schools with these materials, and the relevant Ministry concerned with the construction of schools and classrooms.

2. Curriculum administration. In developing countries with centralized educational systems, efficient transportation is critical to successful curriculum implementation. The lack of vehicles, the rising costs of fuel, and the relative inaccessibility of very remote areas of the country meant that rural schools were less likely to receive equipment than those in or close to urban centers. In under-equipped schools, an additional problem is adequate storage space for specialized equipment such as technical kits. The fact that to date many schools still report inadequate storage facilities and thus a significant loss of scarce resources because of theft, has had serious implications for the sustainability of BEST-supported curriculum innovations. Finally, a circuitous process for purchasing materials from the Ministry,

compounded by the fact that certain materials could only be purchased abroad, led to serious delays in the delivery of much-needed equipment. In short, the successful administration of the curriculum was frustrated at key points in the process of change.

3. Curriculum implementation. What has been clear for some time from the research on curriculum implementation was once again confirmed in Zimbabwe: centralized curriculum change simply does not work. Even in well-equipped schools it was found that the school principal ("the head") was instrumental in either promoting or, more often, resisting the change intended at the policy-level. One example that came up repeatedly was that the principal with a strong academic bias who would relegate the teaching of technical subjects to a very low priority on the school time-table; the principal was also seen as reinforcing the stereotype that "technical education is for dumb kids." Furthermore, teachers who were trained in both a technical and academic subject would often revert to teaching what they felt more comfortable with i.e., the academic subject. What this suggests is that a dynamic exists at the school and classroom level which runs counter to policy-intentions in Harare or, even, to those intentions delegated to the decentralized regional offices.

While the three problem areas listed above refer directly to SSTK, it applied in some ways to DLM as well. For example, the low usage of distance materials in many urban schools where alternative sources of texts were available was apparently not monitored by CDU and may have led to substantial wastage. Again, the distance of policy from the school-level is the principle which emerges in the case of DLM as well.

But BEST's support for curriculum change also provided some clear evidence of success. In particular, the quality of curriculum design merits special attention. If the goal of DLM was to get basic learning materials at minimal costs into the hands of underqualified teachers in rural areas, the design of this curriculum package must rate as excellent. Careful content analysis of a sample of these materials revealed a) a significant correlation of content with rural Zimbabwean contexts, and b) a level of instruction suitable for underqualified teachers and easy to follow as self-learning modules by students at the secondary level. While these materials are seldom highly rated by more qualified teachers in more established schools, given the political environment of the early 1980s, they did meet the policy goal of equipping rural schools with basic materials in a relatively short period of time.

Reflecting on the curriculum input most-needed at this stage, it is clear that decentralization has to be taken one step further: from the regional offices to the school-level. Involving principals and teachers more directly in the process of innovation is critical, particularly since there is evidence of at least one "expert teacher" in the many schools visited whose curricular and instructional skills could be harnessed on the school site towards the ultimate goal of more effective teaching and learning. The most valuable input thus far has to be the experts mobilized at the CDU, particularly during the early 1980s under the direction of now Minister of Education and Culture, Comrade Fay Chung. It must be mentioned, though, that the subsequent high turnover of staff at CDU has undermined the early gains in certain sectors of the CDU operations. Finally, while a revolving fund has been established to generate some funds for continuing the production of curriculum materials, substantial new sources of financing these innovations are needed if any sustainability is likely in the near future.

TEACHER EDUCATION

Given the rate of school expansion since independence, it was clear that the preparation of qualified teachers would for some time lag behind the expansion process. Nevertheless, institutional means are in place (14 teacher education colleges) to provide teachers on a regular basis to Zimbabwe's schools, a process that will be effective if the rate of constructing new schools is drastically reduced. BEST's role in this process was minimal, restricted to the building of Belvedere Technical Teachers College, the provision of equipment to this institution, and a small amount towards inservice training (see main report). The following observations are therefore restricted to teacher preparation at Belvedere.

Belvedere is unique in the teacher training system of Zimbabwe since it produces teachers who have a dual qualification: one in a technical subject and another in an academic area. Theoretically, these teachers are thus more versatile than their counterparts (e.g., graduates of Gweru Teachers College) and, as many principals reported, more flexible in terms of the needs of the school. Furthermore, when these teachers are placed in rural areas, their impact is inestimable in terms of the goal of reducing rural-urban inequalities in the national school system. And as a final accolade, Belvedere teachers were frequently singled out for their general pedagogic skills in the classroom.

In practice, some of these advantages of the Belvedere graduate are frustrated by several factors. First, these teachers

are often underutilized at the school site especially in their practical subject either because of the lack of relevant equipment and classrooms or as a result of the structure of the school time-table. What this means is that the opportunity to pursue and therefore improve on their training in a technical subject is lost. Second, the distribution of teachers by region is inadequate, so that qualified Belvedere teachers (as with other qualified teachers) are disproportionately placed in urban centers.Third, the working conditions of teachers are demanding (e.g., overcrowded classrooms and lack of basic facilities) so that excellent qualifications are not given full expression in such a demanding context.

While inservice training takes place on a regular basis, most of it is directed towards syllabus interpretation and preparation for changes in the examination system. The BEST-supported training was also directed at a specific goal: to upgrade primary teachers to teach at the secondary level. There is little evidence of training to assist teachers or equip principals to deal with what has been outlined as key problems in the area of teacher education and utilization.

The most valuable inputs into the process of teacher education at Belvedere has been the role of the long-established University in monitoring the curriculum of the institution and the adequacy of its overall role in the preparation of teachers. For example, a recent University-led evaluation recommended a change from the 4-year to a 3-year program along with other changes in the college curriculum (Bourdillon 1990). Also, the number of qualified teaching staff (lecturers) has increased dramatically which should lead to improvements in the quality of training provided. Finally, the pool of applicants to Belvedere has also increased sharply and this, too, should allow for the selection and training of a skilled group of professionals through this institution.

The most needed inputs lie not so much in changes in the teacher education program as it does in the broader context of schooling in Zimbabwe where these graduates will be employed. Here the role of the Ministry in improving the working conditions of teachers will be central to retaining this increasingly qualified work force --or lose them to other sectors within or outside the country.

EXAMINATIONS

Of all the qualitative reforms in Zimbabwe, those targeted at changes in the examination sector were among the most successful. The political will to break with the influential Cambridge Examination Syndicate and fully localize the O-level examinations has to be admired, given the prestige of the overseas examinations

both within the country and abroad. BEST provided strong support (see main report for details) for the localization process and, in terms of changing the content of the exams, the following successes merit enumeration:

1. through a carefully engineered process, teachers, examiners, subject-matter experts (normally university-based) and policy-level persons were brought together to develop, test and revise specimen examinations for the localization process in each subject. The quality of the syllabi developed through this meticulous process has met with approval from Cambridge in most subject areas.

2. through careful co-ordination, the development of localized examinations were matched by changes in many of the textbooks and syllabi to be used at the O-level. Changes in these materials supporting localization reinforced the strength of the examination development process.

3. through pilot-testing, the new examinations were circulated ad discussed among a broad group of teachers in the country and the input used for further revisions.

4. through the involvement of teachers at all levels of the localization drive (e.g., as markers), the process was kept as close as possible to school-level realities in Zimbabwe. Thus, for example, the localized exam in metalwork in under-equipped schools would only include tasks which did not unfairly disadvantage the candidates at such institutions, and the exam in Food & Nutrition found local ovens in the rural areas to be adequate substitutes for the "modern oven" requirement of the previous (Cambridge) syllabus.

5. through a gradual transition from Cambridge, using the latter's considerable experience in managing examinations, the possibilities of unforeseeable administrative problems were minimized. At this point, markers trained under Cambridge are already training fellow Zimbabweans and this will strengthen even further the development of an indigenous examination system.

The strength of the localization effort is further revealed in a content analysis of examination papers where is was found that there was a strong correlation between examination content and the social, cultural and economic contexts of Zimbabwe. The task of matching content with context is perhaps the single most important achievement of examination reform in Zimbabwe.

Among the most valued inputs into this process is the training of a large pool of skilled markers who are the backbone of the examination process. A critical element in this process was the

APPENDIX H

APPENDIX H
TERTIARY INSTITUTIONS IN ZIMBABWE

TEACHER TRAINING INSTITUTIONS

Secondary

Belvedere Teachers College
Gweru Teachers College
Hillside Teachers College
Mutare Teachers College

Primary

Bondolfi Teachers College (private)
Marymount Teachers College
Masvingo Teachers College
Mkoba Teachers College
Morgan ZINTEC Teachers College
Morgenster Teachers College (private)
Nyadire Teachers College (private)
Seke Teachers College
Swanda
United College of Education

TECHNICAL TRAINING COLLEGES

Vocational Technical Colleges

Gweru Technical College
Msasa Vocational Technical College
Westgate Vocational Technical College

Technical Colleges

Harare Institue for Technology
Kwekwe Technical College
Kushinga-Phikelela Technical College
Masvingo Technical College
Mutare Technical College

Polytechnic Institutions

Bulawayo Polytechnic
Harare Polytechnic

UNIVERSITY

University of Zimbabwe
University of Zimbabwe (Bulawayo: Science and Technology) (proposed as Second University)

APPENDIX H

APPENDIX H
TERTIARY INSTITUTIONS IN ZIMBABWE

TEACHER TRAINING INSTITUTIONS

Secondary

Belvedere Teachers College
Gweru Teachers College
Hillside Teachers College
Mutare Teachers College

Primary

Bondolfi Teachers College (private)
Marymount Teachers College
Masvingo Teachers College
Mkoba Teachers College
Morgan ZINTEC Teachers College
Morgenster Teachers College (private)
Nyadire Teachers College (private)
Seke Teachers College
Swanda
United College of Education

TECHNICAL TRAINING COLLEGES

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APPENDIX I

APPENDIX I

COMPARISON OF KITS

ITEM	ZIMSCI	T. KITS	GEOG. KITS
Sponsors	SIDA	BEST; SIDA	SIDA
Costs Total	US$9.7m	US$3.2m	US$3.9m
Number of Units Produced	950 kits (350 to come)	1441 kits	1300 kits (755,000 et)
Program Objectives	Science by doing	Introduce voc educ	Supportive materials
Period	1981-1991	1985-1989	1983-1991
Designers	Univ/CDU	CDU	CDU
Audience	Secondary	Secondary	Prim/Sec
Source of Materials	Local, Foreign	Local, Foreign	Local, Foreign
Range and Type of Materials	Texts, Lab kit	Texts, Tech kit	Atlases, maps, globes, kits

While these three innovations experienced common problems (namely, storage, transportation, and central-regional coordination), the following comparative lessons emerge for the BEST-funded technical kits program:

1. Geography and science are well-established academic subjects that have a favored status in the schools. Technical subjects are relatively novel and continue to face considerable resistance given their status during the colonial era as the type of education suitable for Africans.

2. Geography and science were narrowly focused in content and carefully designed by an unusually motivated group of key persons involving a range of university experts, teachers, and enthusiastic EOs. Technical subjects involved nine subjects and a disparate group of individuals among whom there was a high staff turnover.

3. Geography materials were of an exceptionally high standard both in content, design, and level of sophistication--which made it attractive to both teachers and students. Technical subjects were prepared on poor quality paper, with very simple illustrations, and at a fairly basic level of sophistication.

4. Geography and science were funded under different procurement processes, enabling foreign equipment to be obtained quickly and directly. Technical kits experienced severe difficulty in replacing or adding to locally available equipment and tools.

5. Efforts to improve and extend the technical kits will have a greater effect on the overall utility of the education system to national and manpower needs.